

UTTAR PRADESH DISTRICT GAZETTEERS



DEHRA DUN

DANGLI PRASAD VARUN

I.A.S.,

State Editor

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DISTRICT DEHRA DUN

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PREFACE

This Gazetteer is twenty-sixth in the series of revised District Gazetteers of the State of Uttar Pradesh, which are being published under a scheme jointly sponsored and financed by the Union and State Governments.

The earliest accounts pertaining to the area covered by the district of Dehra Dun were G. R. C. William's *Historical and Statistical Memoir of Dehra Dun* (1874), E.T. Atkinson's, *The Himalayan Districts of the North Western Provinces of India*, Volumes I to III (1882-1886), various Settlement reports of the region and H.G. Walton's *Dehra Dun : A Gazetteer* (Allahabad, 1911), and its supplements. Other sources, official and non-official, were also utilised. A bibliography of the published works used in the preparation of this Gazetteer appears at its end.

The census data of 1961 and 1971 have been made the basis for the statistics mentioned in the Gazetteer.

I should like to express my thanks to the chairman and members of the State Advisory Board, to Dr P. N. Chopra, Editor, Indian Gazetteers, Central Gazetteers Unit, Ministry of Education and Social Welfare, Government of India, New Delhi and to all those officials and non-officials who have helped in one way or another in the bringing out of this Gazetteer.

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October, 1976

D.P. VARUN

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¹At the time of the meeting

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CHAPTER I

GENERAL

Origin of Name of District

The district is named after the headquarters town Dehra Dun. "Dehra" appears to be a corruption of *dera* signifying a temporary abode or camp. Ram Rai, guru of the Udasi Sikhs, on being ordered by Aurangzeb to retire to the wilderness of the Dun, had pitched his tents here in what is now the Khurpur locality of the town, and had also built a temple nearby Dhamawala. Around these two sites grew up the town popularly known as Dehra. The term *dun* or *doon* means the lowlands at the foot of a mountain range, and as the bulk of the district lies in such a tract, it justifies the *dun* part of the name. Another derivation of the term *dun* is stated to be from Dronashram, hermitage of guru Drona of the Kauravas and Pandavas of Mahabharata time, who sojourned for a season in the village of Dwara, six kos east of Dehra to perform his devotions at a lonely spot.

Location, Boundaries, Area and Population

Location and Boundaries—The district is situated in the north-western region of the State. It is bounded on the north by the Uttarkashi district, in the east by the districts of Uttarkashi and Tehri Garhwal and in the south by the district of Saharanpur, at its extreme southern tip touching the boundary of district Bijnor. The eastern boundary of the district underwent a slight change in 1956 because of the transfer of two villages Tapoban and Dhalwala to the district of Tehri Garhwal. The western boundary of the district adjoining the Simmur district of Himachal Pradesh with the rivers Tons and Yamuna separating the two.

Area—According to the surveyor general of India the area of the district was 3,106 sq. km. in 1961. According to the central statistical organisation the district had an area of 3,088 sq.km. in 1971 and occupied 52nd position in the State in regards to size. For land utilisation purposes the area of the district, however, stood at 2,627.3 sq. km.

Population—According to census 1971 the district had a population of 5,77,806 (females 2,51,198), the rural population being 3,03,529 (females 1,86,840) and the urban 2,71,777 (females 1,14,358). The district stood 49th in the State in respect of population.

History of District as Administrative Unit

Originally the Dun formed part of the region mentioned as Kedar-khand in the *Skanda Purana*. By the 3rd century B.C. it was included in the kingdom of Asoka. The recorded history reveals that for centuries the tract formed a portion of the Garhwal kingdom with some interruptions from Rohillas and was under the occupation of the Gurkhas for about two decades, till 1815, when the entire territory between the Kali and the Satlaj, was annexed by the British. In that year the tract now

comprising tahsil Dehra Dun was added to district Saharanpur. In 1825, however, it was transferred to the Kumaon Division. Up to this time the pargana of Jaunsar Bawar was under the charge of the British resident at Delhi. In 1828, Dehra Dun and Jaunsar Bawar were placed under the charge of a separate deputy commissioner and in 1829, the Dehra Dun district was transferred from the Kumaon Division to the Meerut Division. Since then Jaunsar Bawar also seems to have been treated as an integral part of the Dehra Dun. In 1842 a resolution of government annexed the Dun to Saharanpur district and placed it in the charge of an officer, subordinate to the collector and magistrate of that district, with the title of superintendent but since 1871 it is being administered as a separate district. No change of any importance appears to have occurred in the administrative history of the district till 1956 when the villages of Tapoban and Dhalwala of this district were transferred to district Tehri Garhwal. The district was included in the Meerut Division till 1968 when it was transferred to the Garhwal Division.

Subdivisions, Tahsils and Thanas

Unlike other districts of the State the number of subdivisions exceeds that of tahsils, the number of the former being three and that of the latter two. The tahsil of Chakrata is coterminous with the subdivision of the same name. The tahsil of Dehra Dun on the other hand, because of its two distinct topographies, has been split into the subdivisions of Dehra Dun and Mussoorie, the former comprising the plains or the valley parts of the tahsil, and the latter the mountaneous ones.

According to the census of 1971 the tahsil of Dehra Dun covers an area of 2,368.4 sq. km. and is divided into two subdivisions called the Eastern Dun and the Western Dun. It includes the whole of the valley from the Yamuna to the Ganga, stretching southwards up to the crest of the Siwaliks and northwards to the outer ranges of the Himalayas. It is bounded on the east by the districts of Tehri Garhwal and Garhwal, on the south-west by the district of Saharanpur, on the north-west by Himachal Pradesh, on the north by tahsil Chakrata and part of district Tehri Garhwal. At its extreme southern tip it touches the boundary of district Bijnor. The population of the tahsil in 1971 was 4,98,178 (males 2,19,803).

Chakrata, the northern tahsil and subdivision of the district, is formed by the hill pargana of Jaunsar Bawar and is roughly an elliptical mass of mountains, stretching due north from the outer ranges of the Himalayas. The southern half of the tahsil is encircled by the Tons in the west and the Yamuna in the east and south. It covers an area of 268.9 sq. km. and is bounded on the north by the district of Uttarakashi, on the east by the districts of Uttarkashi and Tehri Garhwal, on the west by Himachal Pradesh and on the south it adjoins the Dehra Dun tahsil. The population of the tahsil in 1971 was 79,128 (males 31,875). The tahsil contains only one town namely Chakrata.

Thanas—For purposes of police administration, there are 9 police-stations in the district of which tahsil Dehra Dun has eight, and Chakrata one.

TOPOGRAPHY

The district comprises two distinct tracts, the montane, which includes the Chakrata tahsil, and the submontane, which includes the Dehra Dun tahsil.

Montane Tract—The tract consists entirely of a succession of mountains and gorges and comprises Jaunsar Bawar, the hilly pargana of the district with which it has physically and historically no connection. It is in shape roughly an oval with its major axis lying north and south. The great physical feature of the tract is the ridge separating the drainage area of the Tons from that of the Yamuna. It has several high peaks, and gives off several ridges on either side towards the great rivers. Even in the hills, Jaunsar Bawar has the character of being one of the wildest and most rugged tracts, affording naturally very little level ground, and that only in small patches. The mountains are peculiarly rough and precipitous and there is much cliff and rock and few villages, so that cultivation is necessarily small and very laborious. The whole rock, almost, is limestone, which no doubt gives a massy, irregular character to the mountains. The ravines are, as a rule, deep and sudden in their descent, often ending in dark chasms, sometimes wooded, but as often, exhibiting bare faces of precipitous rock, covered here and there with a fine wiry grass.

Sub-montane Tract—Below this montane tract lies the Dun proper, which is an open valley bounded by the Siwalik hills in the south, and the outer scarp of the Himalayas in the north.

The Dun is an irregular parallelogram in shape with its longer axis lying almost due north-west and south-east : and its existence as such is due to the presence of the Siwalik hills, as a well-marked range extending along the entire south-western border of the Dun. To the south they present a steep face scarred by frequent precipices. On the north a long gentle declivity slopes inwards and forms a longitudinal shallow valley terminated by the outer range of the Himalayas. The Siwaliks are in fact the obstacle which confines the detritus swept down by torrents from the greater mountains on the north, so that the resultant valley is considerably raised above the level of the great plains to the south. It is to this elevation of the land at their northern base that the Siwaliks owe their tame and insignificant appearance when viewed from a point within the Dun.

The drainage of the valley is borne by two rivers rising at no great elevation, a few kilometres south of Dehra, and flowing east into the Ganga and west into the Yamuna respectively. The drainage fall is, therefore, not so abrupt as in similar formations where it is carried steeply through a break in the Siwaliks direct to the plains. The surface of the Dun undergoes constant changes. A multitude of torrents pours down from the Himalayan hills during the rainy season. They carry with them an immense volume of water, which continuously undermines their containing banks and thus the stream

beds widen until they cover a very large space. The following year the torrent will select for its main channel a new portion of its wide bed, and the process of erosion will be carried on in a new direction.

The most striking physical features of the valley are the marvellous natural boundaries within which it is enclosed the Himalaya mountains, the Siwalik hills, and the rivers Ganga and Yamuna. The Himalayas and Siwaliks are always in view and can never be forgotten by the most casual visitor. The Ganga and Yamuna are not such conspicuous features in the landscape, and their rushing streams may only impress a close observer from their banks. But their names are as well known as the mountains from which they rise, and are inseparably connected with the history and religion of the peoples of India from the remotest times up to now. Of no other district in India can it be more truly said that the names of its boundaries are better known than the names of the district itself.

The Dun is apparently a single valley but in reality it belongs to two great river systems, those of the Ganga and the Yamuna. The water parting runs up to Majra and from therein an almost straight line through Dehra to Rajpur and Landour. Owing to the great amount of debris brought down from the incomparably greater drainage area of the Himalayas, the main drainage line is much nearer to the Siwaliks than the Himalayas. Therefore the torrents from the latter range are more important than those from the former.

The Dun is well wooded and its surface is pleasantly diversified. The exceptions are the Nagsidh and Kalanga hills, both near Dehra. The beauty of the scenery has aroused the enthusiasm of many visitors. "The scenery of these mountain dales," writes the author of the Imperial Gazetteer, "can hardly be surpassed for picturesque beauty even among the lovely slopes of the massive chain to which they belong. The perennial streams nourish a fresh and luxuriant vegetation, whilst the romantic hills to the south and the sterner mountains on the north give an exquisite variety to the landscape". To quote the words of Baker, a former superintendent; "The general aspect of the Dun is perhaps better known than that of any other district in these provinces, and hence its beauties have attained a celebrity second only to Kashmir itself".

Eastern Dun—The Himalayas here rise abruptly from the valley and consequently there are fewer of the long sloping plateaux that form such a marked characteristic of the western subdivision. The surface of the centre of the valley is diversified by two isolated hills—Nagsidh, an off-shoot of the Siwaliks, and Kalanga, an outlier of the lower Himalayas. Both these hills are divided from the parent ranges by rivers, the Nagsidh by the Suswa and the Kalanga hill by the Song.

Western Dun—The lower slopes of the Himalayas here rise at a more gentle gradient. The Asan drains the whole of the valley except the small portion to the extreme east which lies within the basin of Suswa. The Western Dun contains four well-defined tracts. The first, which

may be called the river tract, comprises the land to the east of the Dehra-Asarori road lying round the source of the Suswa, and the shelving land on both sides of the Asan from its source to its confluence with the Yamuna. The second tract consists of the uplands on the crest of the ridge where the town of Dehra Dun stands—a fine, well irrigated and very fertile plateau defined by the Tons river on the west, the Asan and Suswa on the south and the Rispana on the east. The third is a similar triangle of rich land at the north-western extremity of the district watered by the Katapathar canal. Between these two and the north of riverain land fringing the Asan is the submontane tract. This consists of a striking series of parallel plateaux bounded on east and west by hill torrents. To the south, these plateaux slope gently down towards the Asan. The summits are occupied by village sites and stony unirrigated fields.

Mountains

The mountains of the district are the Himalaya and Siwalik ranges. These titles are misnomers. The term, 'Himalaya', is properly applied only to the highest range covered with eternal snow, while Indian writers have used the word Siwalik to designate the outer and lower ranges of the Himalayas as well as the quite distinct chain to which modern custom has limited the use of that name. The word Siwalik was formerly explained as being equivalent to 'Sawalakh', that is to say the range of 1,25,000 peaks. But it is now recognized as a derivation from the name of the god Siva, the presiding deity of the region. Similarly, parts of the Dun are said to lie in the region particularly scared to that god, and known after his famous temple at Kedarnath as Kedarkhand.

The Siwaliks—The Siwaliks (to adopt the modern limited use of the name) extend along the entire southern border of the district, from the Yamuna to the Ganga, running parallel to the Himalayas. Some of the peaks even display in miniature all the features of the grandest mountains. In passing through them from the south one beholds an endless succession of sharp, towering peaks, nearly perpendicular precipices and a maze of little valleys. From the drainage line of the Asan and the Song-Suswa, the ground rises southward by uniformly easy slopes, when alone the gradient becomes steep. At the extreme south-east corner of the district where the range is pierced by the Ganga it expands into a mountain knot known as the Motichur hill.

The Siwaliks nowhere present a well-defined single ridge. Numerous long and high subordinate ridges run out in every direction, very often sweeping suddenly round and assuming a direction parallel to the main ridge and by their size obscuring it, so that the chain of the Siwaliks at first sight appears to be an inextricably confused mass of ridges, spurs and peaks. This peculiar conformation is most conspicuously developed in the western portion of the range.

The Siwalik range is quite distinct from the Himalayan system. Though its upheaval was accompanied by movements of the Himalayan mountains themselves and probably by increase in the latter's elevation, yet the Siwalik range is of more recent formation and is perhaps the most recently formed range of similar magnitude on the earth. It is

still in the first stage of growth, and it may be expected in the future to rise in altitude and expand in width.

Himalayas—On the north and north-east the horizon is bounded by the Mussoorie range, which opposite the town of Dehra Dun bends back and encloses a portion of the valley in an immense amphitheatre. This range forms here the outer scarp of the Himalayan system and culminates in the Landour peak and Top Tibba. To the south, a number of minor ridges run towards the Dun.

RIVER SYSTEM AND WATER RESOURCES

The chief rivers of the district are the Ganga, Asan, Suswa, Yamuna and Tons.

— **Ganga**—The Ganga touches the district at Rishikesh, near which it receives the Chandna Rao (Chandrabhaga Nadi). About 16 km. lower, it receives the waters of the Song and the Suswa, the two main rivers of the Eastern Dun. Thence, distributing its waters into several streams encircling wooded islands, it leaves the district near Hardwar after forming the boundary between the Dun and Garhwal.

Asan—The Asan river rises in a clayey dip to the west of the Asarori-Dehra road, and after a north-westerly course of about 42 km. falls into the Yamuna. It drains the whole of the Western Dun and receives on either bank mountain torrents, which rise in the Siwaliks or the Himalayas. The chief of its tributaries is the eastern Tons rising in the hill below Mussoorie.

Suswa—The Suswa river rises in a clayey depression near the source of the Asan but to the east of the Asarori-Dehra road. It flows south-east, draining the Eastern Dun and receiving, like the Asan, the minor streams rising in the hills to the north and south. The first affluents of any importance to join the Suswa are the Rispana Rao and the Bindal. Later the Suswa receives the waters of the song.

Song—This river rises in Tehri Garhwal and after running parallel to the Dun for some kilometres in a north-west direction unites with the Bindal.) Here it breaks, in a wide gorge, through the last line of the outer scarp of the Himalayas and receives the Baldi river near village Dwara. Thence the combined waters flow in a south-easterly direction until they meet the Suswa. About two or three kilometres below the junction of the Song and the Suswa, a third torrent of importance, the Jakhan Rao, is received. The Suswa maintains a parallel course at short distances. The portions of the Eastern Dun north of these rivers to the east of the Tirsal forest, and the *khadar* of these rivers themselves, present a network of streams, and it is often difficult to distinguish the main rivers from their tributaries.

Yamuna—The Yamuna rises in the Uttarkashi district in the mass of peaks known as Bandarpunch or Yamnotri. Its basin is separated from that of the Ganga by a great ridge having its origin in the Mussoorie range. It enters the district at a point in *khat* Bondar, about 20 km.

due east of Deoban, there receiving the small stream called the Riknar Gad. A few kilometre lower down it receives another similar stream, the Khutnu Gad, and is joined by the Amlawa, a stream which rises at the southern base of the Deoban mountain. About 3 km. further to the west below the iron suspension bridge on the Chakrata road, it also receives the waters of the western Tons. Thence entering the valley of the Dun, about 175 km. from its source, the Yamuna receives near Rampur Mandi the water of the Asan.

Tons—This river is the chief affluent of the Yamuna in the district. It rises north of the Yamnotri peak in the Harki Dun and first issues as a stream called the Supin. Later it receives the waters of the Rupin and from this point the united stream is called the Tons. About thirty kilometres lower down, it is joined by the Pabar. A smaller tributary, the Kunigadh, rising at the north-east corner of *khat* Bawar then joins the Tons. It then forms to a little distance the boundary between the district and the district of Sirmur (in Himachal Pradesh) as far as Kalsi, where it joins, and merges into the smaller but more illustrious Yamuna.

GEOLOGY

The first reference to the geology of the Dehra Dun district was made by Fisher in 1832 in an article entitled "*Geological Sketch of Musuri and Landour*", in which he mentioned the existence of limestone and quartzite around Mussocrie.

Slates and quartzites with red and mottled beds occurring in the Chakrata-Kailane region north of Sindhoh and Seligad are the oldest rocks of the district which have been correlated with the Simla slates. They are separated from the Jaunsars by Tons thrust.

The rocks of the Jaunsar series forming a syncline have the widest distribution in Dehra Dun district and are divided into Mandhalis, Chandpurs and Nagthats. The Mandhalis consist of a complex association of limestone, quartzites, grits, slates phyllites and boulder beds whereas the Chandpurs are composed of banded quartzites and phyllites with occasional lava flows. Intrusions of dolerite are common in the Chandpurs. The Nagthats are essentially made up of quartzites, sandstones, conglomerates and phyllites of purple and greenish colours. The succession of rocks in the Jaunsar series is rather complicated and little understood. The Chandpurs seem to have been thrust upon the Mandhalis and are overlain by Nagthats with unconformity.

The rocks of Nagthats stage are overlain by Blaini-Infra Krol-Krol-Tal succession which form a synclinal basin occupying the Mugsoni ridge. The Blainis consisting of boulder beds, slates and limestones are overlain by bleached black carbonaceous and pyritic slates of Infra Krols. The Krols are essentially made up of calcareous slates, impure limestones, red shales and massive dolomitic rocks with occasional bands of cryptocrystalline high grade limestone between Sidoli and Cloud End, south of Mussoorie. They are overlain by Tals which are well developed in the Mussoorie syncline. The lower Tal is characterised by black cherty beds

with dark micaceous shales and slates and the upper Tal by ferruginous quartzites and grits, sandstones, green, red and purple silty material with shelly limestone at the top. Current beddings and ripple marks are common in the upper Tals.

The Jaunsars along with Blaini-Krol succession are thrust over the autochthonous Tertiaries on the south by Krol thrust. The distribution of Dagshai rocks comprising purple sandstones and red shales is quite sporadic. Exposures are seen in the Tons and Amalava rivers near Kalsi and also, as a narrow indefinite outcrop, below the Krol thrust. Some patches of Dagshai-Subathu rocks are also seen on the Simla slates near about Debra in the Chakrata region indicating that Tertiary sedimentation may have occurred in the region in Dagshai times. The Siwaliks are conspicuous in the southern parts of Dehra Dun. The lower and Middle Siwalik stages, comprising soft greenish sandstones inter-bedded with chocolate and greenish concretionary clays with lenticles of coal and massive sandstones with calcareous concretions inter-bedded with bright clays, are seen south-west of Siwalik range and north-west of Dehra Dun forming high hills. The upper Siwaliks constituting conglomerates inter-bedded with loose brown and rocks crop out in the Siwalik range as a narrow intermittent strip along the Krol thrust.

Minerals

Limestone—Associated with the upper Krol dolomitic limestones in the Dehra Dun district occurs a belt of limestone. The limestone occurs more or less at the boundary of the upper Krols and red shales.

Gypsum—Gypsum is associated with the upper Krol dolomites. It occurs as lenticular masses of varying sizes running along the bedding direction of the dolomites and appears to be a replacement of upper-Krol dolomites.

Tufa—Large masses of calc-tufa occur on a flat plain, within an area of 1,000 metres by 3,000 metres. The material appears to be suitable for the manufacture of good class lime which can be utilized in several chemical industries.

Copper—A copper mine exists on the bank of the Amlava river near Kalsi. Another copper locality is Punaha in the Jaunsar Bawar area close to Kalsi.

Lead—Several old lead mines are situated in the Tons valley. The lead which occurs in the shattered limestone and slate was worked to a certain depth after which it was abandoned. It may either be due to impoverishment of the ore or to difficulties of mining with increasing depth. The ore also contains a small percentage of silver.

Gold—Gold washing has been carried out at several places from the sands of the Yamuna river. The return, however, is barely remunerative.

Phosphorite—The occurrence of phosphate in Mussoorie was first reported in 1885 during the course of a search for fossils in the area.

The phosphorite varies in physical, chemical and mineralogical characteristics, with shale, chert or carbonate base.

Marble—A continuous band of white to greyish white, crypto-crystalline, closely joined marble occurs in the district.

CLIMATE

The district has within its limits lofty peaks of the outer Himalayan as well as the Dun with climatic conditions nearly similar to those in the plains. The temperature of any given locality in the district depends very largely on the elevation. In general, the climate is temperate. The year may be divided into four seasons. The period from about the middle of November to February is the cold season. The hot season which follows continues up to about the end of June. The monsoon season is from July to about the third week of September. The following period, till the middle of November, is the post-monsoon or transition season.

Rainfall

Records of rainfall in the district are available for one hill station and six other stations at lower altitudes for periods ranging from 70 to 101 years. The details of the rainfall at these stations and for the district as a whole are given in Statement I at the end of the chapter. The average annual rainfall in the district, excluding Mussoorie, is 2,281.7 mm. while in general the rainfall increases as one proceeds from the south-west towards the north-east, the region around Rajpur gets the maximum rainfall, while the areas around Ambari and to the north get the least rainfall in the district. About 87 per cent of the annual rainfall in the district is received during the months from June to September, July and August being the rainiest. The variation in rainfall from year to year in the district is appreciable. In the period of 50 years from 1900, the highest annual rainfall, which was 147 per cent of the normal, occurred in 1917, while the lowest forming only 58 per cent of the normal was recorded in 1907 and 1918. During this period, the annual rainfall in the district was less than 80 per cent of the normal in 8 years, two of them being consecutive. Considering the rainfall at individual stations, two consecutive years of such low rainfall occurred thrice at Dehra Dun, twice at Bhogpur and once each at Rajpur and Mussoorie. The annual rainfall in the district was between 1,900 and 2,500 mm. in 26 years out of 50.

The frequency of annual rainfall in the district between 1901-1950 is given in the following statement :

Range in mm.	No. of years
1301—1500	2
1501—1700	2
1701—1900	6
1901—2100	11
2101—2300	9
2301—2500	6
2501—2700	2
2701—2900	4
2901—3100	6
3101—3300	1
3301—3500	1

On an average there are 79 rainy days (i. e. days with rainfall of 2.5 mm or more) in a year in the district. This number varies from 72 at Ambari to 96 at Mussoorie.

The heaviest rainfall in 24 hours recorded at any station in the district was 440.4 mm. at Rajpur on August 25, 1954.

In winter the higher peaks are under snow—on a north aspect—until April. Local tradition says that the winter rains do not finally clear until snow falls on Bhadraj, rising immediately above the Dun valley to the west of Mussoorie. Being situated at a higher altitude the winter rains are often accompanied with snowfall at places like Mussoorie. After heavy fall of snow the view of Mussoorie from Dehra Dun is picturesque. Except on the tops of the hills, however, the snow soon melts and disappears in two or three days.

Temperature

There are two meteorological observatories in the district, one at Mussoorie and the other at Dehra Dun. The district being hilly, temperature variations due to difference in elevation are considerable. However, the records of Dehra Dun may be taken as representative of the conditions in the Dun, and those of Mussoorie as broadly representative of the hilly regions. After February both day and night temperatures begin to increase rapidly. Generally May and the early part of June constitute the hottest parts of the year, the highest maximum temperature in May at Dehra Dun so far being 36.2° C. and that at Mussoorie 24.8° C. On individual days, the maximum temperature rises to over 42° C. at Dehra Dun, while at Mussoorie the maximum does not exceed 32° C. In the hilly regions, the summer is pleasant, but in the Dun the heat is often intense, although not as intense as in the plains of the adjoining districts. Afternoon thundershowers which occur on some days bring welcome relief from the heat. With the onset of the south-west monsoon over the district, by about the last week of June, there is an appreciable drop in the day temperatures, but the nights are nearly as warm as during summer. With the withdrawal of the monsoon by about the third week of September, temperatures begin to decrease, the drop in night temperatures being now more rapid. January is generally the coldest month, the mean daily maximum temperature being 19.1° C. at Dehra Dun and 10.2° C. at Mussoorie. The mean daily minimum temperature in January is 6.1° C. at Dehra Dun and 2.5° C. at Mussoorie. During the cold season cold waves affect the district in the rear of passing western disturbances, the minimum temperature sometimes falling down to about a degree below the freezing point of water at places like Dehra Dun, and at places such as Mussoorie, it drops to about -6°C. or -7°C. when snowfalls occur.

The highest maximum temperature recorded at Dehra Dun was 48.9° C. on June 4, 1902, and that at Mussoorie was 34.4° C. on May 24, 1949. The lowest minimum temperature at Dehra Dun was -1.1° C. on February 1, 1905, and January 11, 1945, while at Mussoorie it was -6.7° C. on February 10, 1950.

Humidity

The relative humidity is high during the south-west monsoon season, generally exceeding 70 per cent on the average. The mornings are comparatively more humid than the afternoons. It is less during the rest of the year, the driest part of the year being the summer season with the relative humidity in the afternoons becoming less than 45 per cent.

Cloudiness

During the south-west monsoon season and the short spells of a day or two in the cold season, in association with passing western disturbances, skies are generally heavily-clouded or overcast. The hills are often seen enveloped in clouds. During the rest of the year it is usually lightly clouded or clear.

Winds

Winds are generally light. In the Dun, winds in the post-monsoon and in the mornings in the rest of the year, are variable in direction though northerly to north-easterly winds are sometimes experienced during post-monsoon and winter mornings. In the afternoons winds are mostly from directions between south-west and north-west throughout the year, except in October and November. In the hilly regions, in the period from May to September, winds blow from directions between south-west and south-east. In the post-monsoon and cold seasons these winds continue to be most common, but on many days in the mornings northerly to north-easterly winds also blow. In March and April, morning winds are northerly to north-easterly and afternoon winds south-easterly to south-westerly.

The following statement gives the monthwise mean wind speed and the annual mean wind speed for Dehra Dun and Mussoorie :

Months	Mean wind speed in km. per hour	
	Dehra Dun	Mussoorie
January	2.6	6.7
February	3.1	7.4
March	3.6	7.9
April	4.2	7.9
May	4.1	8.4
June	3.6	7.3
July	2.7	5.6
August	2.5	4.7
September	2.8	5.4
October	2.3	6.1
November	3.0	6.8
December	2.6	6.8
Annual	3.2	6.7

Further details regarding temperature and humidity of the district are given in Statements II and III at the end of the chapter.

Special Weather Phenomena

During the cold season, passing western disturbances affect the weather over the district, causing occasional thunder-storms, some of which are accompanied with hail. Thunder-storms occur during the summer and monsoon season also. Fog occurs occasionally during the cold season.

The frequency of special weather phenomena for Dehra Dun (D) and Mussoorie (M) is given in the following statement :

Months	Mean number of days with									
	Thunder		Hail		Dust-storm		Squall		Fog	
	D	M	D	M	D	M	D	M	D	M
1	2	3	4	5	6	7	8	9	10	11
January	3.0	1.6	0.2	2.0	0.0	0.0	0.0	0.3	0.2	3.0
February	2.0	1.6	0.1	1.7	0.0	0.0	0.1	0.3	0.3	1.6
March	5.0	4.0	0.3	1.8	0.0	0.0	0.4	0.5	0.0	0.7
April	4.0	5.0	0.2	1.2	0.0	0.0	0.3	0.5	0.0	0.4
May	8.0	8.0	0.2	0.8	0.2	0.2	0.1	0.8	0.0	0.5
June	10.0	9.0	0.5	0.2	0.1	0.1	0.1	0.3	0.2	6.0
July	12.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	10.0
August	12.0	9.0	0.0	0.1	0.0	0.0	0.0	0.0	0.8	17.0
September	10.0	9.0	0.0	0.1	0.0	0.0	0.0	0.3	0.6	13.0
October	3.0	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	3.0
November	0.5	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.1	1.0
December	0.7	1.4	0.0	0.7	0.0	0.0	0.0	0.1	0.1	2.0
Annual	70.0	60.0	1.6	9.0	0.3	0.3	1.0	3.0	3.0	67.0

FLORA

Forests

The Garhwal rajas derived a considerable revenue from the Dun forests in pre-British days, mainly through excise collected at posts erected at the passes of the Siwaliks. In the early years of the British rule no attempt was made at forest conservation, confusion prevailed, and the forests were auctioned and leased experimentally while valuable sal forests were being recklessly denuded. The absence of conservancy was absolute. The district abounded in fine trees 100 or 200 years old and upwards. Most of these fell before the axe and probably the rest would have gone with them had the roads been little better. Since 1844

the British authorities, stopped to leasing the forests and kept the collection of dues in their own hand till the establishment of forest department in 1855, which also concentrated its energies on the collection of revenue at first without making any attempt at systematic conservancy. It was not until 1877 that the forest, measuring about 777 sq. km., were properly demarcated. The village forest included those not reserved by the department and those found within the boundaries of large waste land grants. They were declared to be the property of the zamindars of the villages.

In 1864, regular forest operations were commenced under the commissioner of Meerut Division, but it took 13 years to properly demarcate the forests, to make roads and to lay down the rights of the government and the people. Although in 1878 the Forest Act had become law, it was not till 1887 that the first working plan for the forests of tahsil Dehra Dun could be prepared and the scientific management of forests started. In the beginning of the present century considerable areas of land in the eastern Dun, mainly covered with grass or patches of inferior forests, were excluded from the original demarcation of the reserved forests as waste land blocks and portions of these were from time to time leased for cultivation.

The forests in tahsil Chakrata were until 1860 much neglected. Little or no restrictions were placed upon their utilisation by surrounding villages. In 1864 the cutting of deodar was forbidden when the proposals of commissioner, Meerut Division—who was also made conservator of forests for his division, were approved by government. Following the appointment of a conservator of Forests for the North-Western Provinces in 1868 rules began to be more stringently enforced. In 1872 the demarcation of the forests into three classes was carried out. The first class, measuring about 6,360 hectares, was denominated government forest. They consisted chiefly of deodar. In these the villagers were allowed no rights whatever. The second class was open government forests. These contained mixed trees spreading over an area of 80,972 hectares. The villagers were allowed rights of fuel and grazing, and on certain conditions building timber, and cultivation. The third class measuring about 66,005 hectares was made over entirely to the villagers for their own use, with the reservation of the government's superior right, that is to say, sale or alienation of forest land was forbidden. It included all waste land lying outside the first and second classes. The rights of the villagers were further extended in 1919.

In 1932, the government sanctioned a scheme in the district in which agriculture is allowed for four years or lease in certain areas where new forests are to be developed, and this continues to be in force here even today.

Private or village forests of tahsil Dehra Dun taken over by the forest department on July 1, 1952, as a consequence of the enforcement of the U.P. Zamindari Abolition and Land Reforms Act, 1950 (Act No. 1 of 1951) have also been brought under scientific management since 1955-56 when the first working plan was prepared for these forests. The recommendations of the working plan are carried out by trained forest officers and subordinate field staff. Poorly stocked forests, grassy banks

and forests of low economic value are being replaced by plantation of fast growing species which are of industrial importance. The third class or the village forests of tahsil Chakrata have greatly diminished since they were made over to zamindars owing partly to the natural recklessness of the villagers in dealing with timber and partly due to the unreasoning fear of their being taken over by the forest department if maintained in good condition. So far there is no working plan for this class of forest in which villagers have got unlimited rights.

In the course of different working plans prepared by the forest department for the development and scientific management of the reserved forests of the district, plantations have also been raised over grassy blanks and in open or poor types of forests. Species of plantation raised includes mulberry, *semal*, *tun*, *khair*, *sissoo*, *pulla*, *bahera*, eucalyptus and bamboo.

The following statement gives the details of the forest areas in the district for the last five years ending in 1970-71 :

Year	Under the forest department (in hectares)	Private forests (in hectares)	Total (in hectares)
1966-67	1,50,517	16,500	1,67,017
1967-68	1,52,786	16,500	1,69,286
1968-69	1,53,058	16,500	1,69,558
1969-70	1,53,920	16,575	1,69,895
1970-71	1,50,803	16,575	1,67,378

Botanical Divisions

The flora of the district include a vast range varying from tropical to Alpine species owing to the variation in altitude and aspects.

The forests in the western part of tahsil Dehra Dun may be divided into two botanical divisions, the broad leaved or the *sal* forests and the coniferous forests.

Sal Forests—They occur over the Dun valley up to the top of the Siwalik ridges in the south, and up to an altitude of about 1,300 metres in the north. *Sal* is generally pure but towards the top of the Siwalik ridges, mixture of miscellaneous species increases and, at some places, *chir* is found mixed with *sal*. *Sal* is the main timber species, which is converted into scantlings, railway sleepers, planks and *ballies* etc. *Sal* timber is also largely used for constructional purposes. The main consuming centres are Delhi, Rohtak, Meerut and Punjab. In the lower part near nullahs *jamun* is quite common. The main associates of *sal* are *Asna* (*Terminalia tomentosa*), *haldu* (*Adina cordifolia*), *bahera* (*Terminalia belerica*), *Sandem* (*Ougenia dalbergiodes*), *jhingan* (*Lannea grandis*), *dhaman* (*Grewia elastica*), *pula* (*Kordia calycina*), *kachnar*

(*Banhine-avari-egata*), *semila* (*Bauhinea retusa*), *dhauri* (*Lagerst reemia parviflora*), *bakli* (*Anogeis-sus-latifolia*), *padal* (*Stereospermum Suavestens*), *semal* (*Salmalia malabarica*), *aonla* (*Embllica officinalis*), *amaltas* (*Cassia fistula*), *tun* (*Cedrela toona*) *dhanidhak* (*Erythrina suberosa*), *har* (*Terminalia chebula*), *kanju* (*Haloptelea integrifolia*), *Kharpat* (*Garuga pinnata*), *kumbhi* (*Careya arborea*), *lisara* (*Cordia dichotoma*), *phaldu* (*Mitragyna parviflora*), and *kusum* (*Schleichera oleosa*).

In between the top of the Siwalik ridge and the lower parts generally the following species are found, the mixture varying according to aspect, altitude and soil conditions : *rohini* (*Mallotus philippinensis*), *chamror* (*Ehretia laevis*), *bhilawa* (*Semecarpus anacardium*), *maidalakri* or *chandana* (*Litsea chinensis* or *Litsea glutinosa*), *chilla* (*Casearia tomentosa*), *dmsal* (*Milliusa velutina*), *dudhi* (*Wrightia tomentosa*), *kathbitwa* (*Buchnanian lanzan*), *khaja* (*Bridelia retusa*), *kurha* (*Holarrhena antidysenterica*), *tarcharbi* (*Sapium sebiferum*).

Among the shrubs, the following are common : *Karu* (*Clerodendron infortunatum*), *gandela* (*Murraya keonig*), *binbu* or *ban* (*Glycosmis pentaphylla*), *bansa*, *besinga* (*Adhatoda vasika*), *bhang* (*Cannabis sativa*), *bhatta* (*Desmodium species*), *bhat kataiya* (*Solanum indicum*), *bindu* (*Golebrookia oppositifolia*), *chameli* (*Jasminum arborascens*), *chinchia* (*Flemingia chappar*), *daia* (*Callicarpa macrophylla*), *dhaula* (*Woodfordia floribunda*), *ber* (*Ziziphus species*), *khatber* (*Ziziphus xylophyra*), *marophali* (*Helacteris isora*), *simala* (*Vitex negundo*), *panwar* (*Cassia tora*), *phalsa* (*Grewia sapida*), *satawar* (*Asparagus racemosus*), *kuri* (*Lantana camera*), *karaunda* (*Carrisa opaca*), *kalabasinga* (*Pogostemon plectran thoides*) *bamboo* (*Dendrocalamus strictus*).

Among the climbers the most common are *Maljhan* (*Bauhinia vahili*), *agla* (*Acacia pennata*), *alai* (*Cacail piniadecap etala*), *amarbel* (*Cayratia carmosa*), *kalidudhi* (*Ichmocarpus frutescens*), *dudhi* (*Vallaris haynei*), *gauj* (*Milletia auriculata*), *giloe* (*Tinaspora cordifolia*), *medha singhi* (*Cryptolepis buehanani*), *ramdatuan* (*Smilax macrophylla*), *roel* (*Combretum decandrum*), *tarur* (*Dioscoria species*).

The most common grasses which are generally found in open forests or grassy banks along streams and on hill slopes are *Baib* or *bhabar* (*Eulaliopris binata*), *goria* or *gorla* (*Chrysopogon contratus*), *kans* (*Saccharuma spontaneum*), *panni* (*Vetiveria zizanioides*), *marari* (*Inperata cylindrica*), *rosha* (*Cymbopogon martinu*), *muni* (*Saccharuma munja*), *pirlu* (*Thysamolcana agrostis*), *tachloor suni* (*Aristida cyanantha*).

Coniferous Species—*Chir* (*Inu Eoxburghi*) is the only coniferous species which is found in the old reserved forests of Dehra Dun division. A few *deodar* (*Cedrus deodara*) trees may also be seen. The associates of *chir* are *banj*, *oak*, *ayar* (*Pieris ovalifolia*), *burans* (*Rhododendron arboreum*), *mehal* (*Pyrus pasha*). The undergrowth consists of *Kilmora* (*Berberis asiatica*), *sakina* (*Indigoferapulchella*), *hisalu* (*Rubus ellipticus*) etc.

Near the streams in sheltered localities there is heavy growth of shrubs like *kilmora* (*Berberis asiatica*), *dhaula*, *thor* (*Euphorbia roylana*), *bhilmora* (*Rumex hastatus*), *kuri* (*Nyctanthes arbortristis*) and *satawar*.

The drier aspects generally carry grasses, the most common of which are *gorla* or *gorla* (*Chrysopogon montanus*), *kumaria* (*Heteropogon contortus*), *nakli bhabar* (*Ereophorum coinosum*) and *ringal* (*Arundinaria fuleata*).

The flora in the eastern part of tahsil Dehra Dun may be divided into fourteen Botanic divisions described below.

Moist Siwalik Sal Forests—These forests are found in the Motichur and Thano forest ranges of the East Dehra Dun forest division. The sal trees growing here are of very low quality. The typical associates of the sal are *bakli* and *sain*. The underwood is usually light consisting of *rohini amaltas*, *rial* (*Buchanania lanzan*) and *aonla*, the undergrowth being *karaunda* (*Carissa opara*), *gandhela*, *bindu* (*Loletia rookia*), *dhawla* and *vasica* (*Adhatoda vasica*).

Moist Bhabar Doon Sal Forests—These forests cover a large area of about 160 sq. km. in the Thano and Barkot forest ranges. Sal is the dominant species in the overwood, forming nearly pure stands, its typical associates being *sain* and *dhauri* (*Lager stroenia parviflora*). The underwood consists of *sandan*, *dhaman* (*Greura elastica*), *rohini*, *chamror* (*Ehretia laevis*), *amaltas*. In moist places *jamun*, *machilus*, *Listsea chinensis* are quite common. The underwood growth includes *karaunda*, *chameli* (*Jasminus pubescens*) and *gaujand* (*Milletia auriculata*).

West Gangetic Moist Deciduous Forests—These forests are found in the Kansaro, Barkot, Motichur and Thano forest ranges. They represent closed forests of medium to good height, including a number of dominant species comprising most of the associates of the sal such as *safed siris*, *bahera*, *jhingan*, *kharpot*, and *dhauri*. The underwood growth is generally open and consists of *karaunda*, *vasica*, and *gharberi*. The grasses found here are *kans*, *gorla* and *munj*.

Low Alluvial Savana Woodland Forests—These forests are usually found on the higher and more stable alluvial terraces in Thana, Lachhiwala, Barkot, Motichur and Kansaro forest ranges. The tree growth is generally poor and scattered consisting of *ambara* (*Spondias magifera*), *semal*, *saijana* (*jhingan*), *kharpot*, *dhauri* and *siris*. The undergrowth is sparse and consists of *vasica*, *gharberi* and *karaunda*.

Sub-Montane Hill Valley Forests—These forests which are found in Motichur, Barkot and Lachhiwala forest ranges, consist mainly of evergreen species able to withstand the wetness of the sites occupied. The species occurring are *gular* (*Ficus glomerata*), *gutel*, *jamun*, *tun*, *safed siris*, and occasionally *semal* and *khair*. The underwood consists of *kala tendu* and *Salix tetrasperma*, the undergrowth comprising cane and *Ardesia solanacea*.

Dry Siwalik Sal Forests—These forests occur on the higher slopes of Siwaliks. The sal is the predominant species in the overwood with its main associates of *sain*, *bakli*, *pipal* (*Buchanania lanzan*), *kachnar* and *guiral* (*Bauhinia* spp.). The underwood consists of *sandan*, *dhaman*, *chamror*, *harsingar* (*Nyctanthes arboristis*), etc., the undergrowth comprising the *dhawla* and *Indigofera pulchella*. The common grass is *baib* and *gorla* and bamboo clumps also occur frequently.

Northern Dry Mixed Deciduous Forests—In the plains these forests consists of *semal*, *khair*, *kanju*, *bahera*, *amaltas* and *bel* (*Aegle marmelos*). The *gutel* occurs near the river banks and water. The undergrowth consists of *gandhela*, *jharberi* and *bindu*. In the hills the common species found are *bakli*, *semal*, *jhingan*, *bahera*, *khair*, *rohini*, *genthi* (*Boehneria rugulosa*), *khinni* (*Sapium insigne*), *mandara* (*Erythrina suberosa*), *chamror*, *chilla* and *harsingar*. The undergrowth is light consisting of *basinga*, *bindu* and *gandhela*. Grasses like *goria kumaria* (*Heteropogon contortus*) and *baib* are fairly common.

Dry Deciduous Scrub Forests—These forests represent a degradation stage of the dry deciduous forests in the Kansaro, Barkot, Motichur and Thano forest ranges. The main species of trees found are *jhingan*, *khinni*, *mandana* and *amaltas*. Common shrubs are *harsingar*, *karaunda*, *mainphal* (*Heronephris spinosa*), *gandhela* and *bindu*. The *Euphorbia* scrub generally occurs on higher elevation with very dry, rocky and bouldery soil.

Khair-Sissoo Forests—These forests occur in Thano, Lachhiwala, Barkot and Motichur forest ranges on gravelly alluvium of streams and rivers. *Khair* and *sissoo* occur mixed but *sissoo* generally predominates. The undergrowth is generally thin consisting of *basingha*, *gandhela* and *ber*.

Sub-Tropical Siwalik Chir Forests—These forests occur in Bahera, Koelpura, Motichur and Nahi forest blocks mixed with dry mixed deciduous forests and sal forests. The pines stand singly or in groups.

Sub-Tropical Himalayan Chir Forests—These forests occur in Thano forest range between the altitudes of 1,200 m. and 2,200 m. The occurrence is, however, local and in small patches.

Himalayan Sub-Tropical Scrub Forests—These forests occur in Thano forest range on shallow and excessively dry soil in outer Himalayan *chir* forest zone. The tree species mostly occur along moist ravines and nullahs and consists of *Ficus roxburghii*, *burans* (*Rhododendron arboreum*), *ban* and *Pyrus pashia*. The shrubs usually consist of *Indigofera*, *Rubus ellipticus*, *Viburnum* and *Euphorbia* species.

Banj Forests—These forests occur almost pure forming a somewhat open canopy of sapling and poles of coppice growth in Thano forest range.

Himalayan Temperate Secondary Scrub Forests—These forests also occur in Thano forest range. They represent a degradation stage of *banj* forests. The common shrubs are *kilmora*, *Rubus ellipticus* and *surai* (*Euphorbia leane*).

The forests in tahsil Chakrata are scattered in the north-west and south and are surrounded by cultivation, but greater part of the forests form a compact belt. The forests of the tahsil have been divided into the following botanical divisions :

Dry Siwalik Sal Forests—This type of forests occurs on the slopes near the junction of the Tons and the Yamuna rivers in the neighbourhood of the Kalsi between the altitudes of 466 m. and 1,220 m. The forests are an admixture of sal, *bakli*, *sain*, *haldu*, *sandan*, *jhingan* and *ban* (*Dendrocalamus strictus*), with shrubby growth of *kurri* (*Nyctanthes arbor-tristis*), *karamunda* (*Carissa opaca*), *gandhela* and *dhaula* on hotter slopes and *arusa* (*Adiantum yasicum*) in the lowest parts. The *ruil* (*Combretum decandrum*) has overrun large areas in Kalsi, the climbers being *malihan* (*Bauhinia yehlii*) and *guai* (*Milletia auriculata*). The *kunaria* (*Heteropogon contortus*), *baib* and *gold* (*Vhrysopogon fulvus*) are the main grasses found here.

The sal growing here is of low quality and height, mixed with other species and after broken up into characteristically pure groups or mixed patches of varying extent between which its associates predominate. Regeneration of sal and its associates is deficient, very slow and difficult to obtain.

Khair-Sissoo Forests—This type which is primarily *seral* type of dry deciduous forest, occurs in a narrow belt along the Yamuna in Kalsi, Rampur Mandi, Majog, Sangred and Tiuni forest blocks and along the Tons in a narrow belt. It is a deciduous forests in which *sissoo* predominates. The canopy is light. *Khair* is present only in Kalsi and Rampur Mandi blocks and absent elsewhere. The characteristic grass is the *kans*.

Sub-Tropical Transition Broad-leaved Forests—These forests occupy a narrow fringe below the *chir* forests in Majog, Sangred, Tiuni, Chandnigad and Anu forest blocks, which are some sort of remnants of dry tropical deciduous and moist tropical deciduous forests mixed with low level broad-leaved associates of *chir*. These are confined in a narrow belt on either side of the Tons river between Anu the junction of the Tons and Pabar and long nullahs. The species consists of *siris*, *sandan*, *semal*, *kachnar*, *kakra*, *mahua*, *kharik*, *rohina*, *puna* (*Ehretia acuminata*) and *jhingan*, with shrubby growth of *arusa*, *kandai*, *dais* (*Cellicarpa macrophylla*) and *kashmoi* (*Barberis lycium*). The *ari* (*Caesalpinia sepiaria*) a climber occurs at some places and *suina* (*Arundinella nepalensis*) and *mirch-gandha* (*Cymbopogon martinii*) are the main grasses. The forests are open, heavily grazed and burnt.

Sub-Tropical Himalayan Chir (Pine) Forests—The forests of this type are typically a pure association of *chir*, considerably influenced by the annual or periodic fires which take place. Depending on the aspect this type occupies almost the whole of the area up to an altitude of 2,100 m. No other trees occur in the top canopy except at higher altitudes and along nullahs. The *kail* (*Pinus wallichiana*), which is more mesophytic, tends to replace it at higher altitude and sheltered cooler sites.

There is practically no underwood, and shrubs are few, but where moist conditions are a little more favourable there tends to be an underwood of broad-leaved trees such as *banj*, *ayar* and *burans* along nullahs. The undergrowth is usually of grasses, mainly *golds*, *kumeria*, *suina*, *tachla* (*Apuldamutica aristata*) and *golringal* (*Arundinaria falcata*) which

appears on cool and shaded aspects only. Shrubs are generally absent or very rare, the chief ones being *anwin* (*Glochidion velutinum*), and *bheko* (*Prinsepia utilis*) on dry slopes, which may degenerate to *suru* (*Euphorbia royleana*) and *dhaula* by continuous burning and grazing and *hinsalu* (*Rubus ellipticus*), *sinar* (*Delbergia siahvopleuca*) and *banwan* (*Myrsine africana*) in the moist places.

The quality and development of forests depend upon the locality and way they were handled in the past. Trees of very good quality are found in the lower parts of Khunigad, Sangred, Mijog, Banpur and Kurog forest blocks. Often, however, there is much variation in quality in the same compartments, it decreases with increasing height.

Riverain Chir Forests—At one or two place in the Khunigad forest block small patches of sand and boulders have been sparsely colonised by *chir*. The forest which is bushy and poorly developed probably because of trampling by animals. The area occupied by such forests is very small.

Himalayan Sub-Tropical Scrub and Sub-tropical Euphorbia Scrub—These two types have been grouped together as they occur side by side on the exposed southern aspects in lower *chir* forests and are often difficult to differentiate. These occur generally below the altitude of 1,500 m. where, as a result of fire and excessive grazing, the overwood has been destroyed or has been unable to develop owing to excessively dry and shallow soil and only open scrub formations cover the ground. The former types frequent sites where some soil is left and the main species found is *ninwa* (*Rhus parviflora*) with little *gandhela* or *arusa*. The latter type is found on dry rocky exposed slopes devoid of soil, where only open scrub of *suru* is found, which is usually pure but sometimes associated with *dhaula* and *ninwa*. The ground cover consists of coarse grasses like *kumaria* and *mirch-gandha*. Examples of such types can be seen in Majog, Dhadu, Anu, Dharagad and Dhanras forest blocks.

Kau (*Olea cuspidata*) Scrub Forests—This type of forests characterised by *kau*, occupied sizeable areas on the flatter alluvial ground along the Tons river. These forests have mostly been cleared for cultivation and only remnants of this type are seen in the Anu and Dandlu blocks where malformed trees of *kau* with a few *kakra* and *siris* are seen struggling for survival. There is a dense undergrowth of *ninawa* and *gandhela* and the ground cover consists of coarse grasses like *kumaria* and *mirch-gandha*.

Ban Oak Forest—Ban (*Quercus incana*) forests are found above *chir* forests upto about 2,250 m. but do not cover extensive tracts except in Ekra, Burasti, Danda and Kurog blocks. *Ban* formations come down to damp nullahs between the altitudes of 1,500 m. and 2,100 m. in *chir* forests zone. The forests are generally well stocked except near villages and are irregular in age. Regeneration is deficient though found at places. The main associates are *ayar*, *kaula* (*Machilus odoratissima* and *M. duthied*), *shurur* (*Litsea umbrosa*) and *bhadroi* (*Phoebe lanceolata*). The undergrowth is fairly dense in moist places but is sparse otherwise and consists of *kakahinsar* (*Rubus lasiocarpus*), *hinsalu*, *taknoi* (*Lonicera*

guinoulocularis), *matoi* (*Desmodium tiliaciflourm*), *chambai* (*Wikstroemia canescens*), *bhakoi*, *kashmoi* (*Barberis aristata*) and *masroi* (*Coriaria nepalensis*). Along nullahs and moist places some *darli* (*Cedrela serrata*) is also found. Climbers are few, the *mithiari* (*Hedera helix*) and *kutoi* (*Rosa moscheta*) being the commonest. Mosses and lichens are found on trees and epiphytic growth of ferns takes place during monsoon season. In some places these forests are being invaded by *kail* and *chir*.

Moru Oak Forests—The *moru* forests occur only locally and are usually confined to nullahs and dumper and moist sites and below temperate moist deciduous forests at an altitude of 2,250 m. These forests are rarely pure and are generally mixed with *ban* in the lower reaches and either with *spruce*, *kharsu* (*Quercus semicarpifolia*) or high level moist deciduous species like *kanju* (*Acer pictum*), *kanial* (*Acer caesium*), *khaksha* (*Cornus marophylla*), *pungar* (*Aesculus indica*), *utis* (*Alnus nepalensis*) and *darli* in the higher reaches. The undergrowth consists of *kalahinsar*, *taknoi*, *bhutnoi* (*Viburnum cotinifolium*), *kanderu* (*Ilex diprenae*), *thantha* (*Rhamnus virgata*), *lish* (*Rhamnus purpurea*), *chamua* (*Daphne pappracea*) and *tiliard* (*Sarcocoea pruniformis*) with some *ringals* in the nullahs.

Oak Scrub Forests—*Ban* oak forests are exposed to damage or destruction through several agencies. Near habitations looping is extremely prevalent and combined with fuel and the heavy grazing demand oak and its associated species are reduced to low, stunted, unsound trees, and but coppice *burans* and *ayar*, both being unpalatable stock, and poor fuels, are generally left. The undergrowth consists of *kaskmal*, *kashmoi*, *bhekoi* and *gingaru* (*Crataegus crenulata*). This type is found in Danda, Kotha, Kua, Bandla, korwa, Singori, Raura and Ekra forest blocks.

Moist Deodar Forests—These forests are mainly confined to Koti, Murach, Darmigad, Konaiw, Mundali, Konasar, Riknar, Kurog and Ekra blocks occupying a zone between the altitudes of 1,800 m. and 2,500 m. On dry exposed aspects this type may ascend up to 2,700 m. These forests are not pure and are mixed with varying proportions of *kail*. The proportion of *kail* is governed by the slope and the treatment the forests received in the past. Steeper areas have more deodar while in the easier slopes *kail* tends to invade deodar especially if the area had fellings in the past. Some spruce is also found mixed with deodar along nullahs and a mixture of fir, spruce with deodar, at higher altitudes, is also not uncommon. The *leuri* (*Cupressus trulosa*) tends to mix with deodar on exposed and steep limestone rocks in Kanasar forest block. A second storey of scattered trees of *burans*, *mone*, *ayar* and occasionally *maples*, is also present. The ground cover consists of shrubs like *kalahinsar*, *kashmoi*, *matoi*, *taknoi*, *chambai*, *chamua* and *ghugtai* (*Deutzia staminea*). The *banapsa* (*Viola canescens*) is found as ground flora. The *kandar* (*Vitis semicordata*), *kaunia-bali* (*Clematis montana*), *mithiari* and *kujoi* are amongst the common climbers.

Western Mixed Coniferous Forests—This type is normally found above 2,400 m. in most of the area of tahsil Chakrata but on cool aspects and easy slopes these forests descend down into the deodar zone. The fir, Spruce, deodar and *kail* are found mixed in varying proportions and

varying intermixture of evergreen and deciduous broad leaved species are also found.

Amongst the evergreen broad leaved species *kharsu* associates in the higher reaches and *moru*, *ban* and *burans*, in the lower reaches. Along the nullahs deciduous species like *pangar*, *kanial*, *kanju*, *akhrot* (*Juglans regia*), *angau* (*Euonymus laceris*), *hoi* (*Meliosma dilleniasolia*), *lish*, *shangri* (*Carpinus viminea*), *kaint* and *khaksha* are found.

The *ban-chulu* (*Lonicera angustifolia*), *Smilax vaginata bhutnoi*, *Richhoi* (*V. stellulatum*), *shunjai* (*Jasminum humile*), *bhuiroi* (*Deutzia corymbosa*), *takoi* (*Spiraea cenescent*), *matoi* and *kugoi* and are the species of shrubs found in these forests.

The ground flora consists *banapsa*, *Fragaria vesca*, *smaiva* (*Valeriana willichii*) and *Polygonum speciosum*, ferns like *Adiantum venustum* and grasses like *Bromus uniloides* and *opsimenus undulatifolius*. Weed growth of *Imperiens* spp. and *jani* (*Strobileinthes gallichii*) takes place in rains, the *kauni* (*Clematis barbellate*), *bani* (*Schizandra grandiflora*), *holbali* (*Jasminum officinale*), *mithiari* and *kandar* being the climbers.

Moist Temperate Deciduous Forests—This type is found in extremely small strips along nullahs and cool moist hollows and depressions within the temperate region between 2,100 m. and 2,750 m. The main species are *pangar*, *kanju*, *kanjal*, *shangri*, *emroi* (*Ulmus wallichiana*), *akhrot*, *kharsu* and *bhotia-badam* (*Sorbus colurns*), the shrubs being similar to those found in the mixed coniferous forests.

Himalayan, Temperate Secondary Scrub Forests—This type is found in the burnt areas within the temperate region especially in Dharmig d, Khunigad and Mundali forest blocks. The original crops have been burnt and a few trees of deodar and *kail* are found. The ground is covered mainly with *sakina* (*Indigofera pulchella*), *bhuiroi*, *kalahinsar* and *kujoi*. In most of these areas plantations of deodar, *kail* and other broad leaved species have been attempted with varying success.

Kharsu Forests—This type occurs in a narrow broken strip above the altitude of 2,700 m. on either side of the main ridge parting the catchment areas of the Yamuna and the Tons rivers. The *kharsu* forests generally have a good density and height varying from 12 m. to 20 m. Brown moss hangs on the trees. *Kharsu* is the predominant crop but it may be mixed with a little *moru*. A scattering of conifers, mainly *mordinda* and *rai*, may be present on cooler aspects and deodar on hotter aspects.

The other species found with *kharsu* are *banbeli*, *iamnoi angau*, *bhutnoi*, *richhor* and *tirnoi* (*Viburnu foetens*). At certain places *ringals* are also met with. The *polygonum speciosum*, *Fragaria vesca*, *Geranium wellichianum*, *Viola* spp. and *Veleriana harowickii* are the common herbs found here.

West Himalayan Upper Oak-Fir Forests—These are typically two storeyed forests with *morinda* and *rai* standing singly or in strips

or groups over *kharsu*, *moru* and other evergreen deciduous species like *kanail*, *goi* (*Meliosma dillenaeifolia*), *angau* and *kabderu* (*Ilex dipyrrena*). The shrubs consists of *kimioi*, *bhera*, *taknoi*, *richhoi*, *Smilax yaginala*, *Barberis* spp. *sharnoi* (*Asparagus* spp.) *bashroi* (*Salix elegans*), *shunjai* and *lish*. Herbaceous growth of *Fragaria* spp., *Aistiaes sptera*, *Polygonum speciosm* and *banapsa* is also present. The climbers consist of *mithiari kandar*, and *kauniabali* (*Clematis montana*).

Himalayan Temperate Parkland—This is a park-like land with trees of deciduous or coniferous species chiefly *porinda* and *rai* standing over a grassy turf. These are generally found in places where the grazers keep their herds for a long time and also on easy slopes in fir, high level deciduous or fir-*kharsu* forests.

Stray trees of *jamnoi*, *kanial*, *pangar* and *morinda* are found in such places. The shrubby growth is characterised by browsed stray clumps of *bunchula*, *ruinsh*, *Tirnoi* and *Barberis* spp. The ground flora consists of *Primula denticulats*, *Fragaria indica*, *banapsa*, and *Rumex nepalensis*.

Himalayan Temperate Pastures—These pasture lands are derived from the park land by elimination of tree species and most of the shrubby growth. The grasses commonly inhabiting such pasture lands belong to the genera, *Festuca*, *Agrostis*, *Calamagrostis*, *Bromus*, *Danthonis* and *Dactylis*. In the lower elevation these grasses may be found mixed with *Themeda anthera*, *Hetropogon* spp. and *Chrysopogon* spp.

Cypress Forests—This type is confined to steep and rugged limestone rocks in Kanasar forest block occupying a very small area. It is an open forest of *leuri* occurring in patches, either pure or mixed, with deodar and *kail*, with practically no undergrowth. The forests are unworkable because of the difficult terrain of the ground.

Alder Forests—These forests occupy very small strips, of 5 m. to 15 m. width along stream and nullahs in the Khunigad, Rikhnargad and Kuroggad forest blocks. This type cuts into the subtropical zone and ascends up to 2,500 m. but appreciable areas are not found above the altitude of 1,900 m. The main species at lower heights is *Khunisand* which, at an attitude of about 1,800 m. is replaced by *utis*. These species grow mostly pure but may be mixed with a little *ban*, *burans* and *kaula*. The shrubby growth consists of *lakoi* and *Barberis* spp.

Low Level Blue Pine Forests—These forests are found throughout the temperate zone. At places the *kail* may descend down to the *chir* zone especially in the Kanasar forest block where protection from fire has been affected. It tries to replace deodar within deodar forests wherever there are gaps or the fellings of deodar are done as in the Dharmigad and Kanasar blocks.

FAUNA

The district has been the habitat of a large variety of mammals and various species of birds, reptiles and fish.

Animals

Among the chief species of wild animals found in the district are the tiger, panther, Himalayan black bear, sambar, spotted deer, hog deer, *gural*, wild boar, elephant, jackal, fox and porcupine (*syahi*). A census operation carried out in 1973 for tigers revealed that there were only 11 tigers left in the district in that year. Tiger is not found in tahsil Chakrata but there are cases when a stray tiger following the herds of Gujar cattle has been sighted. Leopards are found almost everywhere in this tahsil though not in large numbers. They carry away sheep and goats and sometimes kill cattle also. There was a time when both tiger and panther were quite common in the Dun valley, but gradually their numbers have declined so much so that the tiger is today a rare sight. This is due to indiscriminate shooting, reduction in the numbers of the deer family as well as continuous disturbance in their habitat due to plantation activities. All types of shooting have now been prohibited in the forests of the district since October 15, 1965, for a period of 10 years. Sambar has also declined in numbers. The Himalayan black bear is fairly common in deodar and fir forest near Moltas and Chambi. It lives on roots, acorn of oaks, grains, fruits and bark of trees and also feeds on carrions, eggs and birds but seldom kills for flesh though there are exceptions. The wild cat is found near about the Kalsi forest block and preys on birds and poultry. The *kastura* or musk deer frequents steep hills near Mundali and is found above the altitude of 2,700 m. It has become rare due to poaching for musk supply. The barking deer or *kakar* likes thick forests preferably of oaks and avoids dry rocky area. It is found near Moltas, Ringali and Mundali, though not in large numbers. *Gural* is found in the hilly forests of the Binhar, Bakarna, Batoli and Rekholi forest blocks. Wild boar occur everywhere, but they are more numerous in the forest block of Jhajra. The elephant is the biggest representative of the non-game animals. The forests of the West Dehra Dun division along the Siwalik slopes were never visited previously by wild elephants, but for some years now herds of these have been coming from the Lansdowne side and operate mainly between Karwa Pani and Timli. Jackals are found all over the district. Melinos and Albinos of all species have been declared protected by government.

Birds—All the birds of the plains are found in the Dun valley. Among game birds may be mentioned the black partridge (*kala titar*), grey partridge (*safed titar*), red jungle fowl (*murgi*), snipe, *kalij pheasant*, *brahmini* duck, teal goose, spot bill duck, green pigeon (*hariyal*), *chakor* partridge, common pochard and black *bulbul*. Wood-cocks are not common.

In the hills many well-known European species are to be met with : thrushes, water ouzels, yellow and pied wagtails, swallows, swifts, kingfishers, wood-peckers, cuckoo, tree-creepers, shrikes, robins, red-starts and warblers of many kind. The *kalij* (*Lophura locomela*) is a common bird which inhabits areas below 2,600 m. and prefers heavy undergrowth of forests. The *koklas* (*Pucrasia macrolopha*) is found in deodar and fir forests and prefers moist wooded forests with undergrowth. The monal

is sometimes seen in the *kharsu* and fir forests and is not as common as other pheasants. Among partridges the *chakor* (*Alectoris graca*) is found on rocky slopes dotted with bush and grass throughout Jaunsar Bawar and is a regular visitor of cultivated fields. It is found in parties of six to twenty. The black partridge (*Francolinus francolinus*) is sighted singly or in pairs up to the altitude of 1,800 m. in grassy scrub patches near cultivation. The *peora* or hill partridge (*Arborophila targueola*) is a dweller of *ban* forests. Among pigeons the *harial* (*Treron sphenurus*) is seen in flocks in summer mostly in *ban* forests and the blue-rock (*Columba livia*) is found up to an altitude of 1,800 m. and visits cultivated fields regularly. The ringed dove (*Streptopelia decaocto*) is a migratory bird which frequents wooden land and comes near cultivation or outhouses of bungalows in search of food. The wood-cock (*Scolopax rusticola*) is a dweller of moist fir forests and being mainly a nocturnal creature is seldom sighted.

Reptiles—In this district the commonest reptile is the harmless ratsnake (*dhaman*), which grows to two metres and more while the cobra is the most poisonous one. King cobra and python also occur occasionally in these forests. Python, monitor lizard, water lizard and crocodile have also been declared protected species.

Fish—The rivers of the district abound in fish. *Mahasher* and other varieties of fish are found in the Ganga. Fishing in the Yamuna near Kulhal used to be quite popular in the past but this attraction has now ceased. About 35 varieties of fish are found in the district, the chief being *karaonch* (*Labeocalbasu*), *doongra* (*Labeodero*), *mahasher* (*Tortor*), *bhitti* (*Puntiustict*), *phaddar* (*Puntiussophore*), *singhi* (*Hetropneus fossilis*), *sua* (*Eccenentodoncancila*), *bam* (*Maestocembalus Armatus*) and *parhan* (*Wallagoattu*).

Game-Laws

Till the beginning of the present century, the wild life of the district was greatly imperilled on account of indiscriminate activities of hunters and poachers. Its depletion was so rapid that certain species were threatened with extinction. In order to preserve wild life and game species from further ravages, a number of Acts such as the Wild Birds and Animals Protection Act, 1912, the Indian Forest Act, 1927, the Wild Birds and Animals Protection U.P. Amendment Act, (Act XIII of 1934), U.P. Private Forests Act, 1948, and the Indian Forest Act, 1951 were enforced in this district as elsewhere in the State.

The game-laws obtaining in the district, at present are governed by the Wild Life Protection Act, 1972. This Act imposes a total ban on the shooting of such species as the tiger and the leopard, which were otherwise getting close to extinction. Game Rules are available from the forest department of the State. Facilities for big game shooting in the district (except the preserved species) are provided in the Jhabrawala and Barkot forest blocks of Dehra Dun forest division against permits obtainable from the Chief Wild Life Warden, U. P.

Reference Page No. 9

STATEMENT I—Rainfall

Station	No. of years on which data are based	Normal rainfall (in mm.)												Extreme rainfall (in mm.)			Heaviest rainfall in 24 hours* (mm.)	Amount Date (mm.)
		January	February	March	April	May	June	July	August	September	October	November	December	Annual	Highest annual rainfall as per centage of normal and year	Lowest annual rainfall (as per normal and year)		
Ambari	50 a	63.0	65.8	35.3	21.1	24.6	151.1	599.9	582.2	256.8	30.2	7.1	27.9	1,865.0	147 (1917)	46 (1918)	304.8	July 26, 1886
	b	4.0	3.5	2.7	1.7	2.5	7.3	18.3	18.6	9.4	1.3	0.5	1.7	72.0				
Bhojpur	50 a	59.2	56.1	33.0	17.8	33.5	179.1	680.5	818.9	361.7	42.2	7.4	24.4	2,313.8	171 (1936)	43 (1907)	381.0	July 29, 1890
	b	3.8	3.4	2.4	1.6	2.5	8.2	19.2	21.3	11.4	1.8	0.5	1.6	77.7				
Chakrata	50 a	—	—	—	47.7	54.4	173.0	428.7	420.1	184.1	33.3	12.9	—	—	—	—	246.4	July 29, 1871
	b	—	—	—	3.8	4.7	9.0	19.4	18.3	8.7	1.7	0.3	—	—	—	—		
Dehra Dun	50 a	57.9	66.8	37.9	19.6	35.8	184.4	655.6	713.0	304.5	41.9	7.6	24.9	2,149.9	143 (1936)	54 (1907)	327.1	August 22, 1951
	b	3.8	3.8	3.1	1.9	3.0	8.5	20.4	21.2	11.8	2.1	0.5	1.7	81.8				
Mussoorie	50 a	79.3	89.7	66.8	37.1	54.9	208.3	782.3	800.3	329.4	41.1	12.5	36.1	2,537.8	186 (1917)	50 (1918)	439.4	August 13, 1890
	b	4.9	5.2	4.4	3.4	4.2	9.7	23.0	23.6	12.5	2.1	0.7	2.1	95.8				
Raipur	50 a	53.1	60.5	32.3	16.0	31.2	103.6	635.0	706.4	324.6	41.1	6.1	23.6	2,093.5	151 (1917)	54 (1907)	294.6	September 3, 1924
	b	3.6	3.6	2.6	1.5	2.5	8.0	20.0	20.5	11.1	2.1	0.5	1.5	77.6				
Rajpur	50 a	69.3	65.3	43.2	24.4	39.4	246.1	968.0	1058.7	392.4	43.9	9.1	25.7	2,986.0	164 (1917)	50 (1907)	440.4	August 25, 1954
	b	4.0	3.7	3.1	2.0	3.1	9.4	22.9	23.8	12.0	1.9	0.7	1.6	88.2				
Dehra Dun (District)	a	60.5	63.0	36.3	19.8	32.9	184.9	707.8	775.8	328.0	59.9	7.5	25.3	2,281.7	147 (1917)	53 (1907)	—	—
	b	3.8	3.6	2.8	1.8	2.7	8.3	20.3	21.1	11.1	1.8	0.5	1.6	79.4				

(c) Normal rainfall in mm. (b) Average number of rainy days (days with rain of 2.5 mm. or more) *Based on all available data up to 1964

(a) Normal rainfall in mm. (b) Average number of rainy days (days with rain of 2.5 mm. or more) *Based on all available data up to 1964

STATEMENT II
Temperature (in Degrees Centigrade) and Relative Humidity, Dehra Dun

Reference Page No. 11

Month	Mean daily temperature		Highest maximum ever recorded		Lowest minimum ever recorded		Relative humidity	
	2	3	4	5	6	7	8.30 A.M.	5.30 P.M.
1								
January	19.1	6.1	26.1	January 16, 1946	-1.1	January 11, 1945	78	59
February	21.4	8.2	29.4	February 28, 1956	-1.1	February 1, 1905	71	47
March	26.4	12.4	37.2	March 28, 1892	2.2	March 6, 1945	58	38
April	32.1	17.0	40.6	April 27, 1892	7.4	April 3, 1965	43	25
May	36.2	21.5	42.8	May 28, 1944	12.8	May 6, 1947	41	26
June	35.3	23.6	43.9	June 4, 1902	13.9	June 10, 1907	58	43
July	30.4	23.1	40.6	July 1, 1981	18.2	July 18, 1965	85	77
August	29.5	22.7	37.2	August 5, 1949	19.0	August 28, 1965	87	82
September	29.6	21.3	34.4	September 30, 1938	14.4	September 30, 1940	80	73
October	28.2	16.1	36.1	October 2, 1901	9.3	October 31, 1961	68	61
November	24.7	10.3	30.6	November 1, 1952	2.8	November 30, 1938	70	61
December	20.9	7.0	27.2	December 30, 1960	0.0	December 31, 1954	76	61
Annual	27.8	15.8	—	—	—	—	68	54

STATEMENT III
Temperature (in Degrees Centigrade) and Relative Humidity, Mussoorie

Month	Mean daily maximum temperature	Mean daily minimum temperature	Highest maximum ever recorded		Lowest minimum ever recorded		Date		Temperature		Date		Relative humidity	
			Temperature	4	Temperature	5	Temperature	6	Temperature	7	Temperature	8	8.30 A.M.	5.30 P.M.
1	2	3	4	5	6	7	8	9						
January	10.2	2.5	21.1	January 14, 1949	—5.0	January 16, 1935	58	72						
February	11.9	3.7	23.3	February 26, 1953	—6.7	February 10, 1950	56	71						
March	16.2	7.2	26.1	March 31, 1945	—2.5	March 23, 1960	49	59						
April	21.1	11.8	28.9	April 22, 1956	—1.5	April 2, 1963	44	48						
May	24.8	15.1	34.4	May 24, 1949	4.6	May 23, 1964	46	43						
June	24.1	16.4	31.7	June 8, 1935	4.1	June 1, 1962	68	66						
July	20.8	15.9	29.4	July 7, 1949	12.2	July 1, 1939	93	95						
August	20.2	15.6	25.6	August 23, 1957	7.4	August 5, 1962	94	98						
September	19.9	14.3	27.2	September 11, 1946	1.3	September 16, 1963	86	94						
October	18.7	11.1	25.6	October 18, 1951	2.6	October 31, 1961	68	78						
November	15.8	7.4	25.0	November 17, 1952	—2.1	November 29, 1960	49	68						
December	12.7	4.3	23.3	December 30, 1965	—3.9	December 31, 1954	69	69						
Annual	18.0	10.4	—	—	—	—	64	72						

Reference Page No. 11

CHAPTER II

HISTORY

ANCIENT PERIOD

In early times the area covered by the district was included in Garhwal which according to the *Skanda Purana*, lay in Kedarkhanda, the abode of Kedara or Siva, its presiding deity, from whom the Siwalik hills derive their name. These are popularly also called the Shiv *Pahar*. Kedarkhanda is one of the five divisions into which the *Purana* divides the central Himalayas.¹ The region has also been called Devabhumi.²

In the region to the west of the Ganga, which includes the district of Tehri Garhwal and Jaunsar Bawar in tahsil Chakrata of district Dehra Dun, there are numerous places of pilgrimage. The Yamuna flows through this tract. Still further west is the river Tamasa (Tons in Dehra Dun) and where it joins the Yamuna, lies the Dakshatirtha while north of it, near Kalsi in Jaunsar Bawar, lies the Vishnutirtha. One of the streams, called the Dharm, has on its eastern side, the Dharmkut peak where Dharm Raja performed austerities. To the south of this is the Siddhikut peak (Nagsidh in the Dun) and to the north Apsaragiri. Tapovan which lies to the west of the Ganga, near Lachhman Jhula, is also a place for performing funeral rites and Lakshmanasthan for achieving good fortune.³

Rishikesh and Tapovan are associated with Rama and Lakshmana. There, according to legend, they came on the advice of the sage Vasishtha to do penance for killing Ravana, the Brahmana king of Lanka. In obedience to the word of Guru Vasishtha, they lived in wilderness apart from one another, Rama at Rishikesh and Lakshmana at Tapovan, until they obtained remission of their sin.⁴ Lakshmana gave his name to the famous hanging bridge, Lachhman Jhula, on the Ganga. Below Tapovan is the Bilana-tirth where, it is said, Sheshnag of the white body and coal-black eyes loves to dwell.⁵

The Suswa, originally known as the Balkhillya river, as also the Subhan, because it is said to have been associated with the legendary Balkhillya rishis, flows under the Nagsidh or Nagaachal hill, which another legend connects with traditions of Naga supremacy, for it was on the top of this hill that the snake (*nag*), Bamni, did penance, and thereby became lord of the Dun.⁶

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1. Williams, G.R.C. : *Historical and Statistical Memoir of Dehra Doon*, (Roorkee, 1874), p. 71; Raturi H.K. : *Garhwal Ka Itihasa*, (Dehra Dun, 1928), pp. 1, 8; Atkinson E.T. : *The Himalayan Districts of the North-Western Provinces of India*, Vol. II, (Allahabad, 1884), pp. 323-350; Dabral, S.P. : *Uttarakhand Ka Itihasa*, pp. 148-151
 2. Painuli, Paripoornanand : *A Tourist's view of the Valleys of Gods*, pp. 7-8
 3. Atkinson, E.T., *op. cit.*, Vol. II, pp. 337-338
 4. Williams, *op. cit.*, p. 72
 5. Atkinson, *op. cit.*, Vol. II, p. 340
 6. *Imperial Gazetteer, United Provinces, Meerut Division*, (Allahabad, 1905), pp. 4-5; Williams, *op. cit.*, pp. 73-74

In the Dwapar Yuga, Dronacharya, the Brahmana preceptor of the Kauravas and Pandavas, came in search of a lonely spot to perform austerities, and lived near the village of Dwara, on the Deodar Parvat, a part of the lower Himalayan range, six kos east of Dehra. Hence the Dun valley was called Drona Ashram (the dwelling of Drona).¹

In the tract stretching along the foot of the hills from the Sarda to the Ganga and from there through the Dun to the Yamuna there are traces of an ancient civilization, records of which have all but vanished. Numerous mango groves and the remains of tanks are also found amidst the forests along the foot of the range in the Dun, similar in all respects to those found in the Tarai. If to these material evidences of an early civilization we add the testimony of local tradition or folklore recorded by early historians, we may safely assert that even at a very early period the country along the foot of the hills supported a considerable population living in towns, the remains of which show a fair advance in the arts of civilization.²

Among the pre-Aryan inhabitants of the region the most important were those usually known by the generic name Asuras, and who have been referred to in Vedic literature subsequently as Dasyus or Dasas. The early Aryan settlers of the country had to encounter these deadly foes at every step.³

After the fall of the Yakshas, Nagas and Asuras (who were the early inhabitants of the region), the people who came were the Kiratas, Kunindas and Khasas who are also mentioned in the *Mahabharata* as inhabiting the Tarai region in the kingdom of Subahu in the mid-Himalayas and, like other hill tribes, skilled in slinging stone.⁴ The Kunindas and Khasas appear to have been branches of the same stock and since Subahu has been described as 'the lord of Kulindavishaya', it appears that in those days the Kunindas were more prominent and held sway over Kalkut (Kalsi and Dehra Dun).⁵ Later, the Khasas became predominant. They are believed to have originally penetrated these parts from the west, probably even before the advent of the Vedic Aryans.⁶

According to local tradition, the next ruler of the region was Raja Virat, whose capital was Bairatgarh or Bairatgarhi (above Kalsi in pargana Jaunsar Bawar), and who gave his daughter Uttara in marriage to Abhimanyu, Arjuna's son.

1. Williams, *op. cit.*, p. 72

2. Atkinson, *op. cit.*, Vol. II, pp. 443-444

3. Macdonell, A.A. and Keith, A.B., : *Vedic Index of Names and Subjects*, Vol. I, pp. 198, 320-323, 471-473; Vol. II, p. 355; Majumdar, R.C. and Pusalker A.D. (Ed.) : *The History and Culture of the Indian People*, Vol. I, pp. 249-250, 293-294; Sankratayayana, Rahul : *Kumaun*, p. 31; Bahadur, Rai Pati Ram : *Garhwal Ancient and Modern*, pp. 171-172

4. Raturi, *op. cit.*, p. 283; Moti Chandra : 'Geographical and Economic Studies in Mahabharata : Upayana Parva' - *Journal of the U. P. Historical Society*, Vol. XVII, pt. 1, pp. 32-34

5. Moti Chandra, *op. cit.*, pp. 32-40; Dabral, *op. cit.*, pp. 126, 203

6. *Ibid.*, pp. 85, 107, 109

In the course of time the Khasas subjugated the older inhabitants, whom they made their serfs. Several of the ancient Kshatriya kings of the plains appear to have tried to extend their sway over these parts, but it was perhaps Arjuna, the Pandava, who subjugated Kalkut (Kalsi and Dehra Dun) for the first time and annexed it to the Pandava dominion¹ of his brother Yudhishtira, the king of Indraprastha. The Kunindas of these parts are mentioned among those hill tribes who brought superb presents, characteristic of their country, to Yudhishtira² on the occasion of his Rajasuya Yajna. In the Mahabharata War, several princes of the royal Kuninda family laid down their lives fighting bravely on the side of the Pandavas.³

There are a number of old temples at Lakhamandal, which lies on the extreme edge of the district of Dehra Dun in pargana Jaunsar Bawar. These temples are dedicated to Siva, the Pandava brothers, and to Parshurama. Lakhamandal also contains a ruined fane dedicated to Siva as Kedar. Ancient images cover the entire ground of the place, and in the month of Bhadra the people assemble annually to worship at the shrines. Lakhamandal is a place of considerable interest to the antiquarian. Two figures in stone, those of Arjuna and Bhimasena, are remarkably well sculpted; but their faces have been mutilated, it is said, by the Rohillas. There is also a curious stone representing a number of Hindu divinities—Ganesha, Durga, Bhawani, and a few others. At this very place exists a narrow passage which leads underground through the rock to the river side. It is said that the passage was used by the people of the country in times of danger, as a scape route. Lakhamandal has also been referred to as the Lakhshagraha⁴ where, it is said, an attempt was made by Duryodhana to destroy the Pandava brothers by burning down the house of lac, in which he had first tricked them into staying. After escaping from this place, they stayed for a month at a place called Ekchakranagri from which Chakrata⁵ (tahsil in Dehra Dun) is said to have derived its present name.

After the Mahabharata War, the Kauravas were exterminated and the Pandavas regained their supremacy over the area, and Subahu's descendants ruled here for some time as tributaries of the kings of Hastinapur. Finally the Pandava brothers Yudhishtira, Bhima, Arjuna, Nakula and Sahadeva, it is said, passed through the district of Dehra Dun, with Draupadi and their faithful dog, on their way to the inner recesses of the snowy ranges, where they eventually immolated themselves.⁶ After their retirement, Parikshit (their grandson) ascended the throne of Hastinapur and became the overlord of this region.

The people who eventually emerged as the dominant elements in this area were, however, the Khasas who seem to have ruled over different parts of the region down to the time of the Mauryas, in whose empire

1. Dabral, *op. cit.*, p. 161

2. *Ibid.*, pp. 162-163

3. *Ibid.*, p. 179

4. *Ibid.*, p. 208

5. *Ibid.*, p. 156

6. Williams, *op. cit.*, p. 73

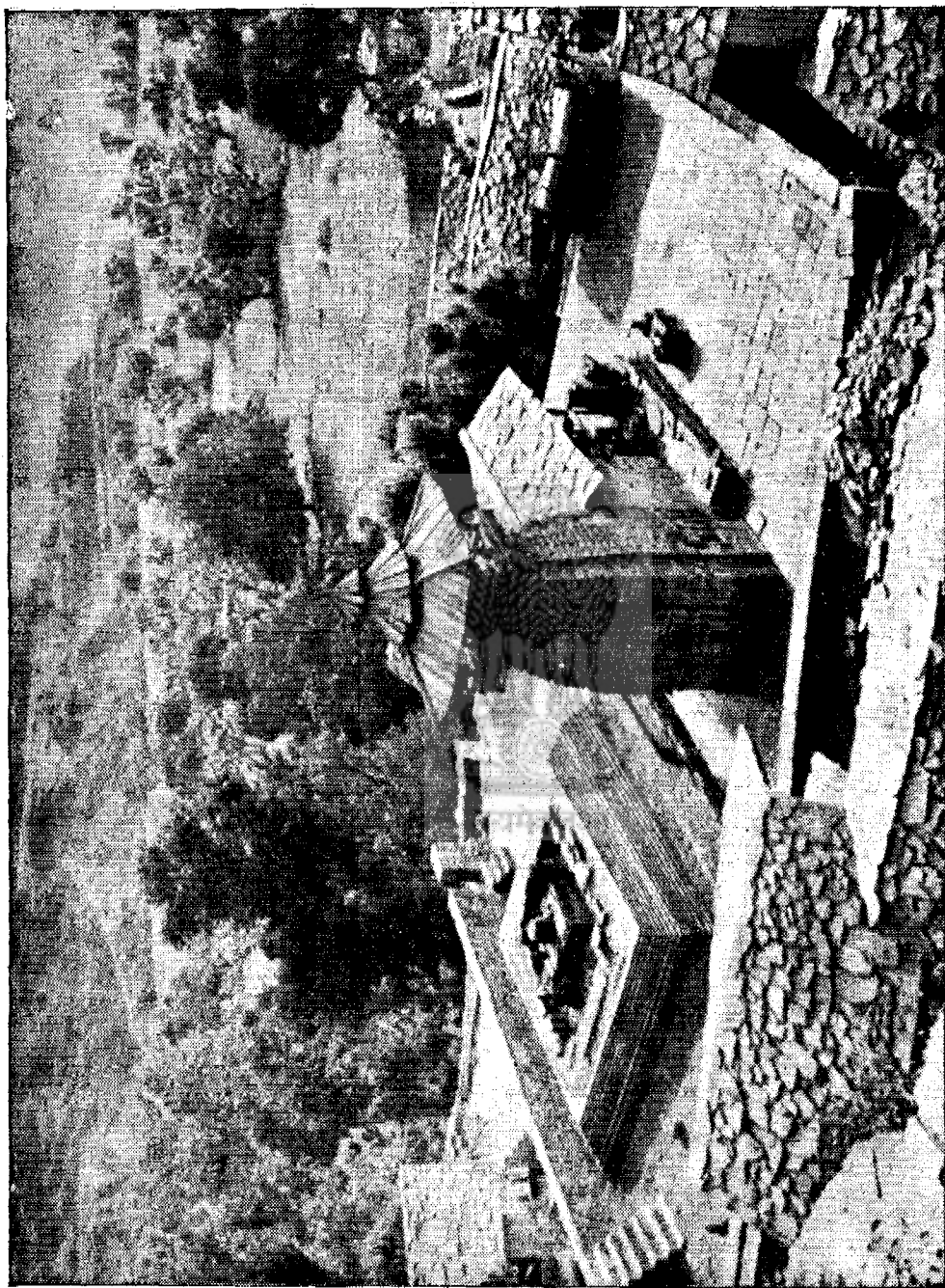
the region was included, the fact being supported by the presence of Asoka's rock edicts at Kalsi, near Haripur in pargana Jaunsar Bawar which proves that his sway extended to these areas and that the Dun, even at that early period, must have been of some importance, for it would manifestly be of little use to place an inscription of the kind in an uninhabited jungle.¹ Cunningham describes this interesting monument thus: "Between Kalsee and the Junna the land on the western bank of the river is formed in two successive ledges or level steppes, each about 100 feet in height. Near the foot of the upper steppes stands the large quartz boulder which has preserved the edicts of Asoka for upwards of 2,000 years. The block is 10 feet long and 10 feet high, and about 8 feet thick at bottom. The south-eastern face has been smoothed, but rather unevenly, as it follows the undulations of the original surface. The main inscription is engraved on this smoothed surface which measures 5 feet in height with a breadth of $5\frac{1}{2}$ feet at top, which increases towards the bottom to 7 feet $10\frac{1}{2}$ inches. The deeper hollows and cracks have been left uninscribed, and the lines of letters are undulating and uneven. Towards the bottom the letters increase in size until they become about thrice as large as those of the upper part. Owing either to this enlargement of the letters, or perhaps to the latter part of the inscription being of later date, the prepared surface was too small for the whole record, which was, therefore, completed on the left hand side of the rock.

"On the right hand side an elephant is traced in outline, with the words 'Gajatame' inscribed between his legs in the same characters as those of the inscription. The exact meaning of these words I do not know; but as the Junagiri rock inscription closes with a paragraph stating that the place is called '*Sweta Hasti*', or the 'white elephant', I think it probable that Gajatame may mean the 'dark or black elephant', and may, therefore, be the name of rock itself. Amongst the people, however, the rock is known by the name of '*Chhatr Sila*' or 'canopy-stone', which would seem to show that the inscribed block had formerly been covered over by some kind of canopy, or perhaps only by an umbrella, as the name imports. There are a number of squared stones lying about close to the rock, as well as several fragments of octagonal pillars and half pillars or pilasters, which are hollowed out or fluted on the shorter faces, after the common fashion of the pillars of Buddhist railings. There is also a large carved stone, 7 feet long, $1\frac{1}{2}$ foot broad, and 1 foot in height, which from its upper mouldings I judged to have formed the entrance step to some kind of open porch in front of the inscription stone."²

"When found by Mr Forrest early in 1860 the letters of the inscription were hardly visible, the whole surface being encrusted with the dark moss of ages; but on removing this black film the surface becomes nearly as white as marble. At first sight the inscription looks as if it was imperfect in many places, but this is owing to the engraver having purposely left all the cracked and rougher portions uninscribed. On comparing the different edicts with those of the *Kapurdagiri*,

1. Dabral, *op. cit.*, pp. 182, 186; Atkinson, *op. cit.*, Vol. II, pp. 351, 375

2. Cunningham, A. *Archeological Survey of India Reports*, Vol. I, (Simla, 1871) pp. 246-247; Dabral, *op. cit.*, pp. 200-201



**View of two temples of Siva—one on right is in use and the other on left shows the remains of ruins,
Lakha Mandal, Dehra Dun**

Junagiri, and *Dhauili* versions, I find the Kalsi text to be in a more perfect state than any one of them, and more specially in that part of the 13th edict which contains the names of the five Greek Kings—Antiochus, Ptolemy, Antigonus, Magas, and Alexander.”¹

It is believed that the Yavanas (Greeks) once exercised influence over Jaunsar Bawar hence the area was called Yavanapura.²

According to another version Jaunsar Bawar formed part of the Yamun-janapada which stretched along both banks of the upper Yamuna.³

An inscription discovered at Jagatgram on the left bank of the Yamuna, opposite Kalsi and assigned to the 3rd century A.D., speaks of a horse sacrifice performed by king Shilavarman who is described therein as the ‘lord of the mountain’.⁴

Another inscription assigned to about the 5th century A.D., discovered at Lakhamandal, gives the names of nine generations of a line of rulers, hitherto unknown, the first of whom is Jayadasa and the last but one Ajeshvara who appears to have got this epigraph inscribed.⁵ Yet another inscription, recovered from the same site and assigned to *circa* 8th century A.D., records the dedication of a Siva temple there by the princess Ishvara for the peace of the soul of her late husband who was a prince of Jalandhara. In the record she gives the genealogy not of her husband but of her father, Bhaskaravarman, who was the eleventh prince in the line of the Yadava kings of Sainhapura⁶ which has been identified by some with the village of Singhpur on the right bank of the Yamuna, about 13 km. south of Kalsi.⁷

Jaunsar Bawar, which once formed a part of the Sirmur Raj (now in Himachal Pradesh), remained a terra incognita down to very recent periods. A mound in village Haripur (near Kalsi) is said to cover the remains of the fort of Raja Rasalu (son of Salivahana of Sialkot) and lends support to the legend that Haripur was once a populous town and a scene of great events.⁸ In 635 A.D., the Chinese pilgrim Hsien Tsang visited the kingdom of Srughna, which may have included a part of the Dun. But had Haripur then been a large town or a place of importance he might have mentioned it.⁹

1. Cunningham, A., *op. cit.*, Vol. I, p. 247; Dabral, *op. cit.*, pp. 200-201.

2. Dabral, *op. cit.*, pp. 199-220

3. *Ibid*

4. *Ibid.*, pp. 201-203

5. Chhabra, B. ch. : ‘Lakhamandal Fragmentary Stone Inscription of the Gupta Period’—*Journal of the U.P. Historical Society*, Vol. XVII, Part 1, pp. 80-83

6. *Ibid.*, p. 93; Dabral, *op. cit.*, pp. 347-351

7. Dabral, *op. cit.*, pp. 208-212

8. *Ibid.*, p. 201

9. Williams, *op. cit.*, pp. 76-77; Dabral, *op. cit.*, p. 201

After leaving Mundwar (in Bijnor district), the Chinese traveller advanced forward. Under any circumstances, his wanderings evidently brought him close to the eastern Dun, if not actually led him through it, but no place on that side evidently presented features worthy of his attention, except Hurdwar.¹

In those days the Dun valley, it is said, was desolate, and remained so until about seven or eight hundred years ago, when a caravan of Banjaras travelling from the west and attracted by the beauty of the country, permanently settled there. The Dun though neglected, according to this popular account, was already a part of the dominions of the Garhwal raja who, however, did not hear of the encroachment upon his territories for several years. At length an expedition was organised to expel the intruders, but the Garhwal raja first sent an ultimatum to the Banjara chief, giving him the choice between immediate submission and a trial of arms. The Banjara chief accepted the first alternative, paid homage to the raja and submitted to regular payment of an annual tribute. Certain wells, groves and villages are still named after the Banjaras such as Banjarawala close to Dehra. Fatehpur Tanda, on the banks of the river Song—as the name denotes—is said to be the place where the Banjara chieftain used to keep his flocks and herds. Whether this tale is founded on fact or not, the belief in the enterprise of the Banjaras, as pioneers of restoring civilization to the desolate Dun is very general in this part of the country.

Under the management of these early colonists, such was the fertility of the soil and the excellence of their cultivation, it is said that no one could drive a loose bullock between the Yamuna and the Ganga, lest irreparable damage should be done to the crops. But after the death of their first leader, the colony languished and almost died out.

From time to time the Garhwal raja (in whose jurisdiction this region was included) endeavoured to replace the Banjaras by other colonists, but his attempts failed, and the Dun, relapsing into its previous condition, did not recover till about the seventeenth century, when the Srinagar rajas take their places in authentic history.²

MEDIAEVAL PERIOD

At the beginning of the twelfth century the bulk of the area covered by the present district of Dehra Dun formed part of the dominions of the Garhwal raja,³ and the tract of Jaunsar Bawar was under the sway of the raja of Sirmur or Nahar (now in Himachal Pradesh). Four versions of the genealogical list of the Garhwal rajas, beginning with Kanakpal are available and barring minor discrepancies agree among themselves.⁴ Nothing, except their names, is known about the first ten rulers of the line down to Bhagatipal who lived about the later half of the

1. Williams, *op. cit.*, p. 77

2. *Ibid.*, pp. 77-79

3. Williams, G.R.C. : *Historical and Statistical Memoir of Dehra Dun*, (Roorkee, 1874), pp. 77, 163

4. Atkinson, E.T. : *The Himalayan Districts of the North-Western Provinces of India*, Vol. II, (Allahabad, 1884), pp. 445-447

eleventh century. They appear to have been mere feudatories of the Katyuri kings of Joshimath (now in district Chamoli). Subsequently, as the power of the Katyuris declined, the rajas of Kunkpal's line seem to have gained in strength. Anantpal I, the seventeenth raja in the line, is said to have changed his headquarters to Maluwakot about the beginning of the second quarter of the twelfth century.² Fourth in descent from him was Vikrampal who is placed in the last quarter of that century and is also said to have shifted his seat to Amlauna-kot.³ He was probably a contemporary of Viradeva, the last Katyuri king of Joshimath, who was both an imbecile and a tyrant and in whose time the Joshimath line of the Katyuris came to an end, Viradeva himself, along with his family, probably migrating to the ancestral seat in the Katyuri valley in Almora district. By this time the Garhwal rajas appear to have secured for themselves an honoured and enviable place among the 52 traditional fort-owners of this region.⁴

Vikrampal's successor was Vichitrapal. Sonpal, who succeeded Vichitrapal's successor, Hanspal, and is assigned to *circa* 1209-1216 A.D., is said to have shifted his headquarters to some place in the valley of the Bhillangana (now in the district of Uttarkashi). It is said that a large number of Khasa chiefs owed allegiance to him and that he held sway over almost the whole of Garhwal.⁵ Sonpal is said to have had no son but only a daughter and when Kadilpal, a scion of the Panwar house of Dharanagar (in Malwa), came to the hills on pilgrimage and paid a visit to this raja, the latter was so pleased with the newcomer that he gave him his daughter's hand in marriage and a part of pargana Chandpur (in district Chamoli) as dowry.⁶ After Sonpal's death, Kadilpal seems to have succeeded to the kingdom and to have made the old capital of Chandpurgarhi his seat of government. He was the twenty-fifth raja in the line and is assigned to 1216-1221 A.D.

His successor was Kandeopal and the latter's was Salakhanpal (1236-1254),⁷ nothing except their names being known about these two as well as of the next nine rajas.⁸ Anandpal II was the 36th ruler in the line. But, with the accession of Ajaipal, who was the 37th in succession from Kanakpal and the 12th from Kadilpal, the history of the Garhwal kingdom begins to assume a degree of verifiable authenticity. Ajaipal seems to have ousted Anandpal II, the Panwar chief of Chandpurgarhi, who was probably his kinsman since Ajaipal himself was a Panwar Rajput. He is said to have first entered into the service of this raja and then getting an opportunity, to have expelled his master and usurped the throne.⁹ Having established himself firmly at Chandpurgarhi, Ajaipal first

1. Ibid. p. 446

2. Ibid.

3. Ibid.

4. Bahadur, Rai Pati Ram : *Garhwal Ancient and Modern*, (Simla, 1916), pp. 220-221

5. Atkinson, E.T., *op. cit.*, Vol. II, p. 445

6. Ibid.

7. Bahadur, Rai Pati Ram, *op. cit.*, p. 208; Atkinson, *op. cit.*, Vol. II, p. 446

8. Atkinson, E.T., *op. cit.*, Vol. II, p. 446

9. *The Journal of the United Provinces Historical Society*, (July, 1943), Vol. XVI, Pt. I, pp. 75-76

reduced the entire pargana of Chandpur to submission and then started extending his power by subduing the other chieftains.¹ Some writers give him the credit for being the first to attempt a consolidation of the entire region from the Himalayas in the north to Chandi (near Hardwar) in the south, and from the Yamuna in the west to Badhan in the east.² How far he succeeded in his attempt cannot be said, but there is little doubt that he was the first Panwar raja to aim at more than a local supremacy,³ and may have succeeded in bringing a majority of the chiefs of Garhwal region under a sort of confederacy, with himself at its head.

Ajaipal's reign is assigned to various dates such as 1358-70, 1359, 1376, 1446 and 1500-19 A.D. The first one (1358-70) appears to be more acceptable.⁴ He shifted his capital from Chandpurgarhi to Dewalgath⁵ and is also said to have chosen the site which later developed into the capital city of Srinagar. He is also said to have laid the foundation and commenced the building of a big palace there which was completed by his successor.⁶ It is further said that he defined the boundaries of his territories, reorganised the parganas and *pattis*, treated the subordinate chiefs generously and loved his subjects. Ajaipal's *sthapana* (settlement or administration) is proverbial in Garhwal. The name Garhwal itself, as applied to the region formerly known as Kedarkhanda, won popularity since his time.⁷

Ajaipal was succeeded by Kalyanpal and the latter by Sundarpal.⁸ It was probably during Sundarpal's time that the first mention of the Siwalik hills is to be found in Timur's (the Central Asian invader) account,⁹ of his incursions into these hills in 1398. Timur, after having sacked Delhi and Meerut, crossed the Ganga, fought several battles near Hardwar and Chandi (in Saharanpur district) and thereafter decided to attack the kingdom of raja Bahruz, which lay in a valley between the Ganga and the Yamuna. The name Bahruz, is probably the Persianised form of Brahma Dutt and is not met with in the genealogy of the Panwar rajahs of Garhwal. It is possible that he may or may not have been subordinate to the house of Ajaipal.¹⁰ After crossing the Ganga from the Bijnor district, "Timur marched several kos and then halted. The following day he marched six kos, and whilst resting during the heat of the day heard that an immense number of the Hindus had collected in the Siwalik hills. When he received this information he gave

1. *Ibid.*, p. 76, Atkinson, *op. cit.*, Vol. II, p. 527

2. Bahadur, *op. cit.*, p. 187

3. Atkinson, *op. cit.*, Vol. II, pp. 446, 524, 527

4. Atkinson, *op. cit.*, Vol. II, p. 526; *The Journal of the United Provinces Historical Society* (July, 1943), Vol. XVI Pt. I, p. 74

5. Dabral S.P. : *Uttarakhand ka Itihasa*, pp. 282-283; Atkinson, *op. cit.*, Vol. II, p. 526; Raturi, *op. cit.*, pp. 365-366

6. Raturi, *op. cit.*, pp. 366-367; Bahadur, *op. cit.*, p. 186

7. Raturi, *op. cit.*, pp. 367-368; Bahadur, *op. cit.*, p. 188

8. Raturi, *op. cit.*, p. 369

9. Elliot, H.M. and Dowson, J. : *The History of India as told by its own Historians*, Vol. III, pp. 461, 513; Bahadur, *op. cit.*, p. 190; Atkinson, *op. cit.*, Vol. II, pp. 524-526

10. Atkinson, E.T., *op. cit.*, Vol. II, pp. 526-527

orders for his entire forces to proceed at once towards the Siwaliks. Marching during the same evening and night, the troops accomplished five kos and encamped in the hills. Here Timur held a council of war and having disposed of the objections of those who wished to dissuade him from his purpose, despatched a body of horse to call in the detachments that had been sent to plunder the towns along the Jamna and directed every one to prepare for the expedition. The troops from the Jamna joined the headquarters next day and on the following day all marched towards the Siwaliks. The distance travelled from the Ganges and the description given of the country point to the Mohan pass as the route taken by Timur in his invasion of the Dun. Timur himself informs us that from his inquiries he learned that the people of Hindustan computed this mountain region at one and a quarter lakh and that it had narrow and strong valleys.¹ In a valley (*darra*) of these hills "there was a Rai named Bahruz, the number of whose forces, and whose lofty, rugged, narrow, and strong position made him superior to all the chiefs of the hills, and, indeed, of most of Hindustan. At the present time especially he, having heard of my approach, had done his best to strengthen his position and all the malignant *rais* of the country had gathered around him. Proud of the number of his men and soldiers, the height of his *darra* and abode, he stood firm, resolved upon fighting."² Having marshalled his army and directed the drums to be beaten and the instruments to be sounded as he approached the valley, Timur proceeded to the mouth of the *darra*, where he alighted from his horse and sent forward his officers and men. "They all dismounted, and, girding up their loins, marched forward to the conflict, full of resolution and courage. The demon-like Hindus were lurking in places of ambush, and attacked my soldiers, but these retaliated with showers of arrows, and falling upon them with the sword forced their way into the valley. There they closed with them and fighting most bravely they slaughtered the enemy with sword, knife, and dagger."³ Bahruz was defeated with great slaughter and the victors reaped an immense spoil in money, goods and slaves. Timur continued his march across the Yamuna in Jaunsar Bawar and there, defeated Ratan Sen, the raja of Sirmur. He can hardly have penetrated beyond the head of the pass near Shorepur, where tradition places an old town and fort, and certainly not farther than Kaulagir (in tahsil Dehra Dun), or Nawada, on the Nagsidh hill, some eight km. south-east of Dehra.⁴ Timur, however, gave up the idea of penetrating further into the hills and returned to his country.

Sundarpal was succeeded by Hansdeopal and the latter by VijaiPal. The next raja was Sahajpal who lived about 1425 A.D. and whose successor was Balbhadra Pal.⁵

It was this raja, also known as Balbhadra Sah and Bahadur Shah, who is said to have changed the dynastic cognomen from Pal to Sah.

1. Atkinson, E.T., *op. cit.*, Vol. II, p. 525

2. Elliot and Dowson, *op. cit.*, Vol. III, pp. 461-462

3. *Ibid.*, p. 462

4. Atkinson, *op. cit.*, Vol. II, pp. 525-526

5. Raturi, *op. cit.*, pp. 369-371

It is said that the sultan of Delhi, probably Bahlul Lodi (1451-1488 A.D.) was somehow so pleased with this raja that he sent to him a rich khilat (robe of honour), gave him the name, Bahadur Shah, and conferred upon him the title of Shah (or Sah) to be used by him and his successors.¹ This, however, does not mean that the raja in any way lost his independence and became subordinate to the sultan of Delhi. The sultan's gesture and the response made by the raja appear to have been only tokens of mutual friendship.²

Balbhadra Sah's successor, Man Sah, issued a grant in 1547 and his date is, therefore, fixed on a sound basis for the first time in the history of the Garhwal rajas.³ He was succeeded by Sham Sah and the latter by Dularam Sah, whose known date is 1580, and who was the first of his line to come in direct contact with the rising power of the Chand rajahs of Kumaon.⁴ Lakshmi Chand, the Chand raja of Kumaon (1597-1621), pursued the aggressive policy of his father Rudra Chand and is said to have invaded Garhwal seven times but to have been repulsed each time with considerable loss by Mahipati Sah, the then raja of Garhwal,⁵ who had ascended the throne after Dularam Sah's death in 1580 A.D.⁶ In 1575, Husain Khan, a Mughal officer, who had received the name Tukriya on account of his tyranny towards the Hindus, mustered his forces to get possession of the hills. His efforts were now devoted to gain possession of Basantpur (now in tahsil Dehra Dun), then a town of considerable importance and reputed wealth. This expedition was solely actuated by his religious zeal and love of plunder, and after breaking the idols, defiling the temples and laying waste the country, Husain Khan returned to his estate in Shahjahanpur district with much plunder and, a bullet in his side. Akbar, the great Mughal emperor, who was then ruling over the greater part of the plains of India, had already received many complaints of the exacting behaviour of Husain Khan towards the Hindus. On being informed of this unprovoked attack on the friendly town of Basantpur, Akbar recalled Husain Khan to Delhi, where he died shortly afterwards of his wounds.⁷

Mahipati Sah, entitled Garbhajana, was a brave man and a great ruler. It was he who finally removed the capital from Dewalgarh to Srinagar of which city he is said to have been the virtual founder. He was also the first raja of his line to consolidate effectively his rule over the whole of Garhwal,⁸ probably including the district of Dehra Dun. By that time Akbar had organised the administration of his vast empire on very sound lines. Within his subah of Delhi there figures a subdivision named the sirkar of Kumaon which comprised 21 *mahals* (or

1. *Proceedings of the Indian Historical Records Commission*, Mysore Session, 1955, Vol. XXXI, p. 17 footnote 2; Raturi, *op. cit.*, pp. 371-373

2. Raturi, *op. cit.*, pp. 374-375

3. Atkinson, *op. cit.*, Vol. II, p. 326

4. *Ibid.*, pp. 542, 553-554

Ibid., pp. 540, 555-557

6. *Ibid.*, p. 527

7. Badauni, Abdul Qadir : *Muntakhab-ut-Twarikh*, Vol. II (English translation by W.H. Lowe, Calcutta, 1924), pp. 122-125; Atkinson, *op. cit.*, Vol. II, pp. 543-545

8. Atkinson, *op. cit.*, Vol. II, pp. 527, 543

pargana), the revenue assessment of as many as 9 of them not being mentioned and indicated as undetermined.¹ The following description may well apply to Garhwal as to Kumaon. "A part of the northern mountains of this subah (Delhi) is called Kumaon. Here are mines of gold, silver, lead, iron, copper, orpiment and borax. Here are also found the musk-deer and the *Qutas* cow, as well as silk-worms, hawks, falcons and game of various kinds, and honey in abundance and the species of horse called *Gut* (*Gunt*),"² None of the *mahals* mentioned under the sirkar of Kumaon, however, seem to have been situated in the hills and therefore within the territories of the raja of Garhwal.³ There is also a story to the effect that on one occasion Akbar, being pleased with the ingenuity of the raja of Srinagar, exempted him from payment of any tribute and his territories from assessment of any revenues to be paid into the imperial treasury.⁴ It appears, therefore, that the rajas of Garhwal continued to enjoy almost full independence, with the exception perhaps of acknowledging nominally the emperor of Delhi as their overlord but paying no tribute and supplying no contingents to him.⁵ Mahipati Sah continued to reign till at least 1625 A.D., which date figures in one of his inscriptions discovered in the Kesho Rai monastery of Srinagar.⁶ He seems to have remained on friendly terms both with Akbar and Jahangir, his contemporay Mughal emperors.

The historian Firishta, who is believed to have completed his work about 1623 A.D., writes, "The Raja of Kumaon also possesses an extensive dominion, and a considerable quantity of gold is procured by washing the earth mounds in his country, which also contains copper mines. His territory stretches to the north as far as Tibet and on the south reaches to Sambhal, which is included in India. He retains in pay an army of 80,000 men both in cavalry and infantry and commands great respect from the emperors of Delhi. His treasures too are vast. It is a rule among the kings of Kumaon not to encroach on the hoards of their ancestors, for it is a saying amongst them that whoever applies his father's treasures to his own use will become mean and beggarly in spirit; so that at the present day fifty-six distinct treasures exist which have been left by the Rajas of Kumaon, each of which has the owner's seal upon it. The sources of the Jamna and Ganges are both to be found within the Kumaon territory."

It appears that Firishta was also confused about the distinction between Kumaon and Garhwal, his description being truer of the latter region than of the former. Garhwal has been celebrated from the earliest times for its mines of copper and lead and the gold washings in the Alaknanda and Bhagirathi valleys and along the Sona river in the Patli Dun, which have always been a part of Garhwal and never of Kumaon.⁷

1. *Ain-i-Akbari* of Abul Fazl Allami, tr. by H.S. Jarret and annotated by J.N. Sarkar, Vol. II, (2nd Ed.) (Calcutta, 1949), p. 294

2. *Ibid.*, p. 285

3. Atkinson, *op. cit.*, Vol. II, pp. 548-549

4. *Ibid.*, p. 549

5. Bahadur, Rai Pati Ram, *op. cit.*, p. 192; Saran, P. : *The Provincial Government of the Mughals* (1526-1658) (Allahabad, 1941), p. 64

6. Atkinson, *op. cit.*, Vol. II, p. 447

7. Atkinson, *op. cit.*, Vol. II, pp. 542-543

Mahipati Sah was succeeded by his son, Prithvi Sah, some time between 1625, the last known date of the former, and 1640 in which year he latter issued a grant.¹ He was a powerful ruler and is said to have extended and fixed the western boundaries of his kingdom by waging a successful war upon the hill chiefs ruling in that quarter.² In 1635, a terrible famine is said to have afflicted Garhwal,³ and soon after in 1635-36, a large Mughal army under the command of Mirza Shuja Najabat Khan Badakshii invaded the Garhwal region. The raja did not resist this army until it entered the interior of his hilly region and then, blocking all exits, beleaguered it fiercely. The result was that the Mughal soldiers were in an unenviable plight. Many of them starved to death and the survivors could return to safety only after the raja's men had cut off their noses while their general in order to escape disgrace, poisoned himself.⁴ In 1647, Dara Shukoh, the Mughal prince, is said to have sent, on behalf of the emperor Shahjahan, a *khilat* (robe of honour) to the raja who seems to have by then been reconciled to the Mughal court.⁵ But, in 1654-55, Khalil Ullah Khan, another imperial general, was despatched to coerce the 'zamindar of Srinagar'⁶ that is Prithvi Sah, and to capture the Dun. On his way Khalil Ullah Khan was joined by the raja of Sirmur, Subhak Prakash, who then held Jaunsar Bawar. Their combined army proceeded through the Dun, and leaving a guard in an entrenched position near Kilgarh (Kaulagir in Dehra Dun) reached Bahadur Khanpur. The peasantry of the neighbourhood took refuge in the hills and forests and ravines, and refused to appear: so troops were despatched against them to coerce them and inflict "suitable chastisement." A number of them fell by the sword, others were taken prisoners and the remainder surrendered themselves, while immense herds of cattle fell into the hands of the victors. A second entrenchment was thrown up here, and leaving a sufficient guard the main body approached the town of Basantpur (in tahsil Dehra Dun), opposite which a third redoubt was constructed and garrisoned, while Khalil Ullah Khan moved on to Sahijpur (then a pargana in eastern Dun), "a place abounding in streams and fountains, and clothed with flowers and verdure." Here he formed a fourth post and erected "a fort on the top of an embankment, measuring 1,000 yards in circumference, and fifteen in height, that had in former times been crowned by a stronghold, inas much as some traces of the ancient works were still visible." On reaching the banks of the Ganga, a detachment of the imperial artillery was sent across the river to take possession of the *thana* of Chandi, which then belonged to Srinagar. Baz Bahadur Chand, the then raja of Kumaon, is also said to have joined hands with the Mughals in chastising his traditional enemy, the raja of Garhwal. The united forces overran the Dun region. The Dun was then handed over to Chatarbhuja, "who had expressed an ardent desire for it."⁸

1. Atkinson, *op. cit.*, Vol. II, p. 563

2. Raturi, *op. cit.*, pp. 382-383

3. *Proceedings of the Indian Historical Records Commission* (Mysore Session, 1955), Vol. XXXI, pp. 17-18

5. *Ibid.*, p. 18

6. *Ibid.*

7. Elliot and Dowson, *op. cit.*, Vol. VII, (Allahabad, 1964), p. 105 (Extract from Inayat Khan's *Shahjahan-Nama*)

8. Atkinson, *op. cit.*, Vol. II, pp. 562-563; Singh, Ram Rup: "*Pawan Himalaya*" *Parichay*, (Hindi text), (Naini Tal, 1937), p. 22

But although the raja offered no resistance, the Mughal army could not penetrate farther into the hills and their commander eventually giving up the attempt returned to the imperial court.¹ A third expedition early in 1656 caused the raja to send his son to court to offer submission.² After Dara Shukoh's defeat as a result of the war of succession of 1658, his son, Sulaiman Shukoh, hotly pursued by Aurangzeb's forces, took refuge in the court of Prithvi Sah.³

In spite of pressures from his ministers and even the crown prince, Medini Sah, at the instance of Aurangzeb, the raja kept the unfortunate royal refugee in comfort and safety for more than a year,⁴ after which he was forced by circumstances to surrender him to Aurangzeb's agents.⁵ It has been stated⁶ that Prithvi Sah received a grant of the Dun from Aurangzeb as a reward for his so-called loyalty. But it is difficult to understand how the emperor could have really granted what was already in the possession of the grantee, although to gratify his own vanity, he might have issued a firman formally recognising Prithvi Sah's title to the district.⁷ It is said that Prithvi Sah founded a town after his name Prithvipur (in Dehra Dun), where he constructed a fort, which also served once as the residence of the subedar of Dun.⁸ Hostilities between Garhwal and Kumaon continued as before during Prithvi Sah's reign.⁹ Prithvi Sah seems to have died in 1664,¹⁰ while Medini Sah, the crown prince had already died at Delhi in 1661. Prithvi Sah was, therefore, succeeded by his grandson, Fatch Sah, who was at that time a child of only seven years. On his accession the emperor Aurangzeb issued a firman (dated January 16, 1664 A.D.) in his favour. During Fatch Sah's minority, his mother Rani Bartwali, appears to have acted as regent.¹¹ About 1684, Fatch Sah took the reins of the government in his own hands. It has been suggested that Fatch Singh who, in 1692, led a memorable raid from the Dehra Dun region into the district of Saharanpur from where he could be driven out only with difficulty by Saiyid Ali, the Mughal general, was none other than this Fatch Sah, the raja of Garhwal.¹² During his regime, the Sikh Guru Ram Rai, who belonged to the sect of Udasi Fakirs, took up his residence in the Dun. History connects the event

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1. Elliot and Dowson, *op. cit.*, Vol. VII, pp. 106-107; Burn, R. (Ed.): *The Cambridge History of India*, Vol. IV, (Delhi, 1957), p. 207
 2. *Ibid.*
 3. Elliot and Dowson, *op. cit.*, Vol. VII, pp. 229-230, 263
 4. Raturi, *op. cit.*, pp. 382-390
 5. *Ibid.*, pp. 387-388; Atkinson, *op. cit.*, Vol. II, pp. 563-565; *Indian Historical Records Commission*, Vol. XXXI, (Mysore Session, 1955), p. 19
 6. Walton, H.G.: *Dehra Dun, A Gazetteer* being Vol. I of the *District Gazetteers of the United Provinces of Agra and Oudh*, (Allahabad, 1911), p. 171
 7. Williams, *op. cit.*, p. 88; Raturi, *op. cit.*, pp. 390-391
 8. Williams, *op. cit.*, p. 39
 9. Atkinson, *op. cit.*, Vol. II, pp. 567-568
 10. Raturi, *op. cit.*, p. 391
 11. *Indian Historical Records Commission*, (Mysore Session, 1955), Vol. XXXI, pp. 19-20
 12. Atkinson, *op. cit.*, Vol. II, p. 573

with Guru Har Rai, the leader of the famous Sikh sect who died in 1661 leaving behind two sons, Ram Rai and Har Kishan. After the death of Guru Har Rai a dispute arose about his succession to the Sikh apostleship and Har Kishan was chosen as successor in preference to Guru Ram Rai. The latter, however, put forward his claim and the dispute between the two brothers was referred to the arbitration of the emperor Aurangzeb, who confirmed the election of Har Kishan in preference to Guru Ram Rai. Har Kishan died in Delhi in 1664 and was succeeded by his uncle, Tegh Bahadur, son of the great Guru Har Govind.¹ Guru Tegh Bahadur was subsequently executed by Aurangzeb who also directed Ram Rai "to retire to the wilderness of the Dun and to refrain from meddling in public affairs or he should meet with similar fate." In obedience to the emperor's command, Ram Rai retired to the Dun at Kandli on the river Tons. He had his own following, but after the succession of Guru Govind Singh, son of Guru Tegh Bahadur, Guru Ram Rai's personal following dwindled to a few retainers and he moved from the Dun and settled down in Khurbura, now included in the town of Dehra. Guru Ram Rai built a temple at the village of Dhamawala, around which grew up the town of Gurudwara, which with Khurbura formed the nucleus of the modern town of Dehra Dun.² Fateh Sah endowed the gurudwara with three villages, Khurbura, Rajpur and Chaman Sari. His successor (Pradip Sah) added to these four others, Dhamawala, Mianwala, Panditwari and Dhurtawala.³ The temple of gurudwara was designed after the model of Jahangir's tomb, and is an object of pilgrimage and veneration by his followers. In the middle of the temple there is an old bed used by him, preserved to the present day. Near the bed is his *samadhi* in which his ashes are preserved, and which is also an object of worship by his followers who come bare-footed to pay their homage.⁴ After the death of Guru Ram Rai in 1687, his widow, Mata Punjab Kaur, managed the affairs of the temple with the assistance of an agent named Har Prasad who was subsequently elected Mahant of the temple for twenty-five years.⁵

MODERN PERIOD

In 1709, the then Kumaon raja, Jagat Chand (1708-1720) invaded Garhwal and captured Srinagar. Fateh Sah fled to Dehra Dun but appears to have returned shortly as in 1710 his troops were again mobilised in Badhan (in district Chamoli) and Jagat Chand was forced to retreat with great loss.⁶

Fateh Sah was succeeded in 1717 by his son Dilip Sah who after reigning for a few months was followed by his brother, Upendra Sah. After nine months Upendra Sah was succeeded by his nephew, Pradip Sah (son of Dilip Sah), who directed the destinies of the Dun and Garhwal for over half a century.⁷ During the latter part of the reign of Fateh

1. Cunningham, Peter : *History of the Sikhs*, pp. 58-60

2. Williams, *op. cit.*, pp. 90-91

3. Raturi, *op. cit.*, p. 398

4. *A Brief History of Guru Ram Rai Sahib*, (Dehra Dun, 1936), p. 7

5. Williams, *op. cit.*, p. 92

6. Bahadur, *op. cit.*, p. 189; Atkinson, *op. cit.*, Vol. II, p. 574

7. Atkinson, *op. cit.*, Vol. II, p. 574

Sah and the earlier part of that of Pradip Sah, the Dun and Garhwal enjoyed a period of exceptional prosperity. Numbers of Rajput and Gujar settlers reclaimed the waste lands of the Dun and villages sprang up on all sides, so that "there were no less than four hundred villages under cultivation, and the gross collections of the year 1786 s. (1729 A.D.) amounted to 94,346 Rs. In 1804 s. and (1747 A.D.) the five pergunnahs were assessed at 97,645 Rs. from which a deduction of 42,845 Rs left a balance of Rs 54,800."¹ This prosperity soon attracted the notice of Najib Khan, also known as Najib-ud-daulah, the Rohilla chief, who in 1757, led an expedition into the Dun and after a very feeble resistance on the part of Pradip Sah established his authority there.² It is said that he protected the residents of the district, encouraged all classes alike to settle in the valley and provided them with land, fostered trade, dug canals, built wells, and raised the revenue to a lakh and a quarter rupees without over-assessing the people. It appears that at this time there were five hundred estates in the Dun all under cultivation.³ These halcyon days suddenly ended though with the death of Najib Khan in 1770. Pradip Sah himself died in 1772 and was succeeded by his son, Lalit Sah (1772-1780), who paid little attention to the affairs of the Dun which soon returned into a wilderness, particularly as a result of the plundering raids of the Sikh, Gujar and Rajput marauders from the plains. The influence of the Mahant of the Sikh gurudwara became supreme and the seat of the local government of the Dun was changed from Nawada to Dehra, the little town which had grown around the gurudwara.⁴

At this time, a political revolution took place in Kumaon, in which the then Chand raja was killed.⁵ The friends of the royal family of Kumaon appealed to Lalit Sah, ruler of Garhwal, and at last succeeded in persuading him to intervene. Consequently, he marched with his army into Kumaon and routed the troops of the usurper, Mohan Chand, at Bagwali Pokhar in 1779.⁶ Lalit Sah had four sons—Jayakrit Sah, Pradyuman Sah, Parakram Sah and Pritam Sah, born of his two wives, and he desired to make them all kings. This victory gave him the opportunity and he placed the second son on the throne of Kumaon under the title of Pradyuman Chand.⁷ Lalit Sah died in 1780 and was succeeded on the throne of Garhwal by his eldest son, Jayakrit Sah, whose grants dating from 1780 to 1785 are known to exist.⁸ It was probably during his time that the Sikhs, in 1783, overran the Dun, plundering murdering and burning as they went. They never attempted to settle in the valley and spared not even the houses clustering around the gurudwara, though respecting the gurudwara itself in which the inhabitants had stored their valuables as a measure of safety. The Garhwal

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1. Williams, *op. cit.*, pp. 94-95
 2. Atkinson, *op. cit.*, Vol. II, p. 575
 3. *Ibid.*
 4. *Ibid.*, p. 576
 5. *Ibid.*, pp. 592-598
 6. *Ibid.*, p. 577
 7. *Ibid.*
 8. *Ibid.*

raja failed to afford necessary protection to his people against these freebooters, except that he tried to buy them off by paying an amount of Rs 4,000 annually to their leaders. The English traveller, Forster, happened to be present when two Sikh tax-collectors appeared to receive the customary tribute. They foddered their horses with green barley torn from standing crops, and so astonished was he with the awe in which they were held that he records the following note: "From the manner in which these men were treated or rather treated themselves I frequently wished for the power of migrating into the body of a Sikh for a few weeks."¹ At this period "the raids of the Rajpoots and Goojurs from Scharunpore did more mischief than the Sikh incursions. They were not petty enterprises of no greater dignity than common *dakoties*, but regular invasions on a small scale, organised by men of consequence, who were able to lead into the field miniature armies composed of horse and foot in due proportion. These were days when a Rajpoot or Goojur chieftain could, at a pinch, muster one thousand fighting men. Against such a force the people of the Doon were helpless, although they occasionally attempted reprisals..... The banditti plied their trade through the two passes most used in the present century for purposes of peaceful traffic, those of Timlee and Mohun. The defiles of Kansrao and Hurdwar were at first less frequented, but when the Khoobur Goojurs gained strength at the expense of the Poondeers, Raja Ramdayal Singh of Landourah appropriated these two gorges to his own use and began to exercise his hereditary profession of robbery in the intervals between his graver occupations in the capacity of Talookdar. The Gurhwal Raja, far too weak to attempt resistance, submitted to the necessity of handing over a few villages to each of the offending chiefs in *jagheer*, on condition of their guarding each pass against marauders belonging to their own or other clans. In this manner Gulab Singh, the Poondeer Rana, obtained twelve villages together with the hand of Lalit Sah's daughter in marriage, and his son, Bahadur Singh, actually got the fiscal management of the Doon in the year 1195 F., (1787 A.D.)."²

After the death of Lalit Sah, differences arose between his two sons, Jayakrit Sah, ruler of Garhwal, and Pradyuman Chand, ruler of Kumaon.³ Jayakrit Sah began to intrigue with the exile, Mohan Chand of Kumaon, against his own brother who, accordingly sent his prime minister, Harak Deb Joshi, to Srinagar in order to dissuade its raja from his fratricidal activities. Jayakrit Sah, however, doubted the sincerity of the minister's intentions, possibly with reason, and attacked Harak Deb Joshi's camp at Srinagar, but to his surprise he found himself opposed by a force which defeated his troops. Jayakrit Sah was obliged to seek safety in flight during which he is said to have died in 1785 of chagrin and fatigue.⁴ Pradyuman Chand united for a year the two countries under his personal sway, but harrassed on the one hand by the pretensions of his brother Parakram Sah, who had proclaimed himself raja of Garhwal, and on the other by the attacks of the party favourable to Mohan Chand, he abandoned Kumaon altogether in 1786,

1. Atkinson, *op. cit.*, Vol. II, p. 576

2. Williams, *op. cit.*, pp. 100-102; Raturi, *op. cit.*, pp. 409-410

3. Sankratyayana, *Rahul: Kumaon*, pp. 95-96; Atkinson, *op. cit.*, Vol. II, p. 602

4. Sankratyayana, *Rahul, op cit.*, pp. 96-97; Atkinson, *op. cit.*, Vol. II, pp. 577-578, 603-604

ousted his brother Parakram Sah and himself ascended the throne of Srinagar under his original name Pradyuman Sah.¹

In 1786, Ghulam Kadir, Najib Khan's grandson, desiring the reconstruction of his grandfather's principality, determined to re-annex the Dun to his possessions. Accompanied by Raja Muniyar Singh, his Hindu adviser, he entered the valley from Hardwar. "Fire and bloodshed marked his onward progress. Not content with sacking Dehra, he gutted the gooroodwara. Cow's blood profaned Ram Rae's holy shrine, and the conqueror, it is said, otherwise expressed his contempt for superstition in an extravagant fashion, smashing the Mohunt's eithern, and reclining disdainfully on the couch where the Saint had breathed his last. It is an article of faith with many orthodox Hindoos that God, as a punishment, smote the sacriligious Nawab with the madness which drove him to destruction."² Ghulam Kadir nevertheless gave evidence of sound judgment in entrusting the administration of his conquest to Umed Singh, his Hindu deputy, who served him faithfully till his (Ghulam Kadir's) death in 1789. Thereafter Umed Singh courted the friendship of Pradyuman Sah, to whom the district once more became nominally subject, but about three years later, he betrayed his new master to favour the raja of Sirmur, who proclaimed his own government in the Dun and, it is alleged, deputed a representative to live at Prithvipur (in Dehra Dun). Pradyuman Sah had recourse to an alliance with the Mirathas who, glad of an opportunity for plunder, hastened to his assistance, but retired after a few skirmishes with the Sirmur troops, without making any decisive mark. Umed Singh was thus enabled to maintain the authority of his new patron several years longer until the Garhwal raja again won him over to his side, giving him the hand of his daughter in marriage. This resulted in the retransfer of the Dun to Srinagar in the last quarter of the eighteenth century. Still the district belonged to anyone rather than to Pradyuman Sah. It was the public property of every sturdy freebooter.³

"The Sikh incursions continued, while the hungry Rajpoots and Goojurs of Seharanpore emulated the activity of the "Singhs." Whenever any delay occurred about the payment of blackmail, fifty or a hundred Punjabee troopers generally sufficed to sweep the country clear. The operations of the others were, as already noticed, sometimes conducted in a more ambitious style.

"Whatever slipped through the fingers of the professional spoiler, fell into the hands of the official harpy. The *amil* for the time being, was his own master, and collected booty with all possible expedition, not knowing the moment when he might suddenly fall a prey to some other more influential or cunning than himself. The original owners retained few villages, and almost all records of rights perished."⁴ Amongst the more unscrupulous of the official spoliators of the country, beneath whose oppression the people of the Dun were groaning, the

1. Atkinson, *op. cit.*, Vol. II, pp. 578, 604-606; Sankratyayana, *op. cit.*, pp. 96-97

2. Williams, *op. cit.*, pp. 102-103; Raturi, *op. cit.*, pp. 410-411

Ibid., pp. 108-104; Raturi, *op. cit.*, p. 411

4. Williams, *op. cit.*, p. 104

name of Hari Singh (Pradyuman Sah's son-in-law), and that of Ram Dayal Singh of Landhaura (in Saharanpur district) stand out prominently. Both stripped the country bare and the annual revenue was reduced to as low as Rs 8,000 a year.¹

In 1801 the Maratha invasion destroyed what little had been left and after them two Brahmana brothers, Rama and Darni, are said to have come into power. Thereafter Puran Singh of Sahaspur (in tahsil Dehra), and finally Shib Ram of Saklana established their authority. The latter's ancestors had obtained the *taluka* from one of the Garhwal rajas. It is evident that the family to which he belonged had great influence from early times, and as an example of their importance, it is related that one of them subjected the Sikh *mahant* of Dehra, suspected of murder, to trial by the ordeal of boiling sugar. Although many may have thus acquired a temporary ascendancy, Umed Singh continued to be recognised viceroy of the Srinagar raja down to the time of the Gurkha conquest.²

In 1791, the Gurkhas marched into Garhwal, but while they were making arrangements for a more determined attack, the news of the Chinese invasion of Nepal caused the withdrawal of their troops for the defence of their own country. Impressed by this show of the Gurkha power, Pradyuman Sah agreed to pay a yearly tribute of Rs 25,000 and appoint an agent at the court of Kathmandu, an agreement that continued for twelve years and preserved some semblance of amity between Garhwal and Nepal.³

In 1803, a well-equipped and powerful Gurkha army under the leadership of Amar Singh Thapa, Hastidal Chautariya, Bam Sah and others, once again marched into Garhwal and rapidly advanced upon Srinagar. Instead of offering resistance to them, Pradyuman Sah, the raja, abandoned the capital and fled to Dehra Dun with his family. The Gurkhas hotly pursued him and drove him out of the Dun which also they occupied. The raja then sold away all the valuables he had with him and with the help of Ramdayal Singh, the Gujar raja of Landhaura (in district Saharanpur), raised an army of about 12,000 men. At its head he re-entered the Dun, but too late. He failed in this attempt to recover his kingdom and died fighting in the battle of Khurbura (now included in the town of Dehra Dun) in January 1804,⁴ and the long-standing Garhwali raj was abruptly overthrown by the Gurkhas. Pritam Sah was taken prisoner, Parakram Sah fled to Kangra and Sudarshan Sah, the eldest son of the deceased raja, sought the protection of the British in the plains.⁵

1. Atkinson, *op. cit.*, Vol. II, p. 379

2. Williams, *op. cit.*, pp. 105-106

3. Sanwal, B.D. : *Nepal and the East India Company*, (Bombay, 1965), pp. 62-63; Walter Hamilton : *A Geographical, Historical and Statistical Description of Hindostan, and the Adjacent Countries*, Vol. II, (London, 1829), p. 636; Rahul Sankratyayana, *op. cit.*, pp. 114-115; Bahadur, *op. cit.*, pp. 193-194

4. Williams, *op. cit.*, pp. 115-116; Raturi, *op. cit.*, pp. 433-436; Sanwal, *op. cit.*, pp. 50-51; *Papers respecting the Nepaul War*, (1824) p. 241

5. Raturi, *op. cit.*, p. 437; Walter Hamilton : *A Geographical, Historical, and Statistical Description of Hindostan, and the Adjacent Countries*, Vol. II, (London, 1820), pp. 686-687; Bahadur, *op. cit.*, p. 190

The Gurkhas ruled over their new acquisition with a rod of iron, so that the district of Dehra Dun wilted, and almost became a desert. Most of the inhabitants emigrated, and the little cultivation that lingered, also began to disappear rapidly. After a time Mahant Har Sewak was re-instated in his possessions in the Dun and some improvement took place. He was the only land-owner left possessing any real local influence, and he used it judiciously, inducing the peasantry to return to their deserted holdings, giving every encouragement that lay in his power to agriculture.¹ The process of improvement was further helped when Hastidal Sah (the Nepalese commandant) held the administration and took an active part in the management of local affairs. Williams writes, "Raids from Scharunpore and the Punjab had been brought to an abrupt termination by the fulfilment of a threat to burn one village for every plundering party that entered the Doon. A band of Sikhs once had the temerity to set the new government at defiance and, as in the days of yore, sacked a village, carrying away several women and driving off the cattle. The Nepalese commandant, receiving intelligence of the outrage, sent two hundred men in pursuit of the marauders, whose own dwellings were surrounded and set on fire. Every man, woman, or child attempting to escape, was massacred in cold blood, except a few of the handsomest females, whose beauty purchased them their life. This signal example had the desired effect."²

Captain Raper in his account of a journey to survey the Ganga, in 1808, when he met Hastidal Sah at Hardwar, describes him as a man of about forty-five years of age, of middle stature, pleasing countenance and desirous in every way to aid him. A few days afterwards Captain Raper was introduced to Hastidal's successor, Bhairon Thapa, who is described as the very reverse of being friendly and always anxious to impede his (Raper's) progress, though eventually they parted as good friends. The Dun was then bustling with warlike preparations. Towards Kangra, there was the impregnable fortress of Raja Sansar Chand, which had defied all the efforts of the Gurkhas to capture it. Bhairon Thapa, himself leaving the affairs of the Dun in the hands of Shista Thapa, his son, proceeded towards Kangra. Raper describes Dehra, as it then was, as an "extensive village," though not many years before it had been a populous town.³ In 1814, the Gurkhas conferred a copper-plate grant on the then Mahant, Har Sewak, recognising his rights over the seven villages,⁴ which had been endowed in favour of the gurudwara by Fateh Sah and his successor, Pradip Sah.

The Gurkhas now had to encounter the British who by 1814 had extended their boundaries as far north as the Gurkha frontier. As the border districts now began to suffer from incessant inroads of the Gurkhas, the British took up the challenge and Lord Hastings (the then governor general) resolved to settle once and for all the issue with them. Consequently, he ordered an attack to be made on the Nepalese army

1. Williams, *op. cit.*, pp. 117-118

2. *Ibid.*, pp. 118-119

3. *Ibid.*, 120-121; Atkinson, *op. cit.*, Vol. II, p. 620

4. Agriculture Income Tax reference no. 220 of 1959, connected with A.I.T. references nos. 221 to 228 of 1959, in paper book filed in the Hon'ble, High Court of Judicature at Allahabad, pp. 2, 7, 12-13.

simultaneously from as many points as possible.¹ The first campaign of the Nepal War was commenced by the seizure of the Timli pass on October 20, 1814, by Lieutenant Colonel Carpenter who was detached by Major General Gillespie for the purpose of rescuing Srinagar from the hands of Amar Singh Thapa. Dehra Dun itself was occupied two days later,² when the British force entered it in two columns by the Mohan and Timli passes. About five km. east of Dehra Dun, on a hill of no great height was the fort of Kalanga or Nalapani, which was built of stone masonry, strengthened in places with a double stockade, and assailable only on one small front. It contained a garrison of about 500 to 600 men under the command of Balbhadra Singh Thapa, nephew of Amar Singh Thapa, the most skilful of all the Gurkhal officers who commanded in Garhwal. Colonel Mawby reconnoitred the fort on October 24, 1814, and finding it impregnable, returned to Dehra to await General Gillespie's arrival.³ In the meanwhile Mawby sent an envoy the same night to Balbhadra Singh Thapa, demanding the surrender of the fort. The latter, who was enjoying a repose at midnight, read the letter and tore it up with the answer that "it was not customary to receive or answer letters at such unseasonable hours; but he sent his salaam to the English sardar assuring him that he would soon pay him a visit in his camp."⁴ On October 25, 1814, Mawby decided to capture the fort but the task being considered impracticable, was given up and the British force returned to Dehra where Gillespie joined the next day, himself taking up the command.⁵ After another reconnaissance, preparations for an assault on a grander scale were commenced and the morning of October 31, 1814 was fixed for the purpose. Four separate parties, consisting of 1,798 men in all, with a reserve of 939 men under Colonel Ludlow, were drawn up. The Gurkhas who had shut themselves inside the Kalanga fort had also not been idle. They had done every thing possible with their resources for the defence. No part of the wall could now be scaled without ladders, stockades were erected along the lines of approach, and at a small gate, open but cross-barred, a gun was placed which enfiladed the main side of attack.⁶ At first the British guns fired shots at the fort for some time, but did little execution and "this, perhaps uniting with the eagerness of a sanguine temper, induced General Gillespie to give the signal for assault some hours sooner than it was intended."⁷ The first attack on Kalanga commenced in the morning of October 31, 1814, and the stockades were easily carried, but on approaching the walls the British suffered severely in both officers and men. The account of this incident by Colonel Kennedy is interesting, as it was prepared from notes made at the time and shortly afterwards when he was examined by a court of enquiry, which sat at Meerut to investigate into the causes of the failures at Kalanga.

1. Dodwell, H.H. (Ed.) : *The Cambridge History of India*, Vol. V, pp. 378-379; Hunter, W.W. : *The Marquess of Hastings*, (Oxford, 1893), pp. 72-73; Atkinson, *op. cit.*, Vol. II, pp. 629-634

2. Sanwal, B.D., *op. cit.*, p. 156; Saksena, B.P. (Ed.) : *Historical papers relating to Kumaon*, 1809-1842, (Allahabad, 1956), p. 14

3. Sanwal, B.D., *op. cit.*, p. 156

4. Atkinson, *op. cit.*, Vol. II, p. 635

5. *Ibid.*, pp. 635-636

6. Williams, *op. cit.*, pp. 129-130

7. Atkinson, *op. cit.*, Vol. II, p. 636

He says, "The infantry part of the columns came up under a heavy fire from the walls; attempts were made to plant the ladders, but a gun placed at an open wicket of the fort, so as to enfilade this part of the front, swept down many. Ensign Ellis was killed, Lieut. Elliot was badly wounded; they then retreated. The ladders were left among the huts, which caught fire about this time.

"Nothing was yet heard of the other columns. Gillespie, on receiving the report of the failure, ordered forward three companies of the 53rd which had just arrived and the battery, under Captain Coulthman, with two horse artillery guns under Lieut. Kennedy, to blow open the gate. Lieut. Napier Campbell accompanied them, and the men of the 53rd manned the drag ropes. After a difficult ascent they came to a stockade intersecting the road, within sixty or eighty yards of the nearest bastion, in getting over which the order of march was somewhat broken, and a sharp musketry fire was opened on them. The General, accompanied by the Colonel of the dragoons and his staff, came up with them here, and they went forward, leaving Lieut. Campbell with one of the guns to cover the advance. Passing through the village, the huts still burning, and much impeded by the dead and wounded of the preceding column of attack, they came to a turn in the road in full sight of the gate of the fort, some fifty or sixty yards off.

"The gate consisted of a cut in the wall, with some loose stones piled up about four feet high, and above them were two strong bars of wood. Through this was pointed a gun loaded with all manner of missiles, and a number of matchlocks were pointed at them over the wall, but now hardly a shot was fired as they advanced up the lane, partially screened by the smoke. The general and his staff led, followed by the men of the 53rd Regiment, steadily dragging on the gun. Under his orders Lieutenants Blane and Kennedy ran on ahead to select a position for the gun, which was brought up to about thirty or forty feet of the entrance, as far as it could go. It gave its message, but the reply was read too plainly by those who should have gone forward to the assault. They wavered, and the fire of the matchlocks and arrows told with effect upon the leading subdivisions. In vain did the general repeat his orders for the men to charge. The wooden bars across the entrance were broken by the fire on the gun, and a party of stout Gorkhas rushed out. General Gillespie was frantic. Major Ludlow appeared at this juncture with several officers and sepoys, and was desired to attack to the right, where it was supposed there was an entrance; and the horse artillery men were ordered to arm themselves with the musketry of the dead. The supply was not a scanty one. When this was done, the general, with his sword in one hand and a double-barrelled pistol in the other, turned to Lieut. Kennedy and the rest, exclaiming: 'Come on, my lads; now, Charles, for the honour of the County Down.' Only a pace or two forward, and he fell with a bullet through his heart. The body was taken to the rear by Sergeant Hamilton (another County Down man), Sergeant Mosley of the dragoons and some horse artillery men. The order to retire was then given, but in the confusion it was not heard in front and the gun and gunners were nearly lost. Captain Campbell fortunately appeared with his column at this time, and

assisted in getting it away and covering the retreat.”¹ The command now devolved on Colonel Mawby, who fell back again to Dehra Dun to await reinforcements and it was not until November 24, 1814, that the arrival of a force from Delhi enabled the British to resume the second attack on Kalanga. On the following day active operations were recommenced and by November 27, a practicable breach had been made in the wall almost without any loss, though the Gurkhas kept up a warm and well-directed fire. The storming party under Major Ingleby “advanced to the breach and stood for the two hours exposed to a tremendous fire from the garrison which caused the loss of many officers and men; but after every exertion on the part of their officers and the fall of many in leading and endeavouring to push them forward in spite of the obstacles that were opposed to them, without any success, it was deemed expedient to order a retreat, and the whole returned to the batteries.”² The Gurkhas made a gallant defence, standing themselves in the breach while using every missile that came to hand, balls, arrows and stones. The British advanced in a cool and self-possessed manner; a few got to the crest of the breach and fell there. “No one turned to fly, but none went onwards; they stood to be slaughtered, whilst their officers exposed themselves most gallantly and unreservedly.”³ Thus the disastrous results of the first attack of Kalanga were repeated. But on November 30, 1814, under orders of Brigadier-General Ochterlony (in whose command this division was temporarily included), the water connections from Kalanga were cut off and the Gurkha troops now reduced to less than 150 men (inclusive of some women and children), evacuated it and made their way with some loss through the investing force, leaving behind them their dead and wounded.⁴

The fort of Kalanga was razed to the ground before the troops left, and two monuments were erected on the spot where the great war took place one in memory of Gillespie and his soldiers who died there and the other in memory of Balbhadra Thapa and the gallant Gurkhali defenders of the fort.

सत्यमेव जयते

The seventy male adults who somehow managed to escape from the fort were joined by some three hundred others who had been seen hovering about the neighbourhood endeavouring to find a way into the fort. Major Ludlow who was sent after these with four hundred men, had succeeded in attacking their camp by night and dispersing them with the loss of over fifty killed. The British themselves suffered a loss of two officers and fifteen soldiers.⁵ In the meantime a British detachment was sent to occupy a position above the town of Kalsi in order to guard the entrance to the hills, which resulted in the surrender of the fort of Bairat (above Kalsi) on December 4, 1814⁶ by the Gurkhas to the British. The people of Jaunsar Bawar, long writhing beneath the yoke of Gurkha oppression, had declared their support for the British,

¹ Sanwal, B.D., *op. cit.*, pp. 158-159

² Atkinson, *op. cit.*, Vol. II, pp. 637-638

³ *Ibid.*, p. 638

⁴ Sanwal, B.D., *op. cit.*, p. 159

⁵ Atkinson, *op. cit.*, Vol. II, pp. 639-640

⁶ *Ibid.*, p. 640

and starved the Gurkhas out of the stronghold, by intercepting their supplies. Its evacuation completed the conquest of Dehra Dun and Jaunsar Bawar.¹ The following day (December 25, 1814), on seeing that the British troops were marching through the Timli pass towards Nahan, Balbhadra Singh Thapa with the remanent of his army threw himself into the fort of Jauntgarh (a mountain fortress on the left bank of the Yamuna, about 12.8 km. north-east of Bairat, in pargana Jaunsar Bawar) and defended himself successfully for a time. He subsequently entered into the service of the Sikhs and died fighting with the Afghans.²

Hastidal Sah (the Gurkha commandant, who had held the administration of the Dun) played a less brilliant part in these campaigns. He was entrusted with the defence of Kumaon against the English and he died in action at Almora in April, 1815.³

A resolution of the British government dated November 17, 1815, ordered the annexation of Dehra Dun to Saharanpur district.⁴

All these defeats, however, did not break the will to resistance of Amar Singh Thapa. Though the Nepal government was compelled to sign a treaty, it refused to ratify the instrument and prepared to re-enter the theatre of war on the recommendation of Amar Singh Thapa, who sent a memorable letter to the Nepal durbar advocating a policy of continued struggle. This letter gives us a true picture of the mind of this resolute Gurkha general and tells us of the fears and anxieties of a chieftain about the intentions and the power of the East India Company.⁵

The war party of Kathmandu led by the enthusiastic Amar Singh Thapa, managed to delay the ratification of the treaty, by inducing the king of Nepal to withhold his signature. Hostilities were, therefore, resumed and only when the British, under Ochterlony, had penetrated into the heart of Nepal and defeated the Gurkha army, was the king of Nepal forced to hand over the document duly signed and executed where-by Dehra Dun was formally ceded to the British, on March 4, 1816.⁶

It may be mentioned that some of the territory held by the Mahant of Guru Ram Rai's temple at Dehra Dun as a rent-free grant under the pre-conquest rulers of Garhwal was confirmed by the British government in 1815 by a *robkar* dated November 14, 1815.⁷

At this time Sudarshan Sah, the titular raja of Garhwal, was living in great poverty in Dehra Dun. The British were not so generous as to

¹ Williams, *op. cit.*, p. 137

² Atkinson, *op. cit.*, Vol. II, pp. 640-641

³ Williams, *op. cit.*, p. 139

⁴ Baker, F. : *Final Report of the Eight Revision of the Land Revenue Settlement of the Dehra Dun District*, (Allahabad, 1886), p. 58

⁵ Sanwal, *op. cit.*, pp. 167-172

⁶ Williams, *op. cit.*, p. 141; Ashworth, E.H. : *Report on the Land Tenure of Mussoorie*, (Allahabad, 1904), p. 2; Aitchison, C.U. : *A Collection of Treaties, Engagements and Sanads*, Vol. II, (1876), p. 167

⁷ Ashworth, *op. cit.*, p. 19

CHAPTER III

PEOPLE

GROWTH OF POPULATION

A rough census taken immediately after the British occupation of Dun in 1815, set down the population (of the Dun) at 17,000 or thereabout. Another followed in 1823 giving a figure 20,179, to which Mr Shore, writing in 1827, added 4,100 persons belonging to the Sirmur battalion, besides 250 attached to the courts and jails, bringing the total to 24,529; without counting about 1,000 hillmen who came down every cold weather to seek employment, and as many more who came from the plains to cut bamboos and timber, to make lime or *khat* and for other mercantile purposes.¹

In 1827, Major Young estimated the population of Jaunsar Bawar at 23,228 souls, or about the same as that of the Dun,² the total population being around 47,760.

In 1848 the population of the district rose to 56,767, and in 1865, it numbered 1,02,831, when an accurate census was conducted.

In 1872 the population was 1,16,945. According to the census of 1881 the population was 1,44,070, and by the census of 1891 it had again increased to 1,68,135.

The decennial figures for the population of the area comprised in the district from 1901 to 1971 as per census records, are given in the following statement :

Year	Persons	Males	Females	Females per 1,000 males
1901	1,77,465	1,02,374	75,091	733
1911	2,04,584	1,20,578	83,956	696
1921	2,11,377	1,27,971	83,906	656
1931	2,29,350	1,37,348	92,502	673
1941	2,65,786	1,61,671	1,04,115	644
1951	3,61,389	2,10,860	1,50,829	715
1961	4,29,014	2,42,987	1,86,027	766
1971	5,77,306	3,26,108	2,51,198	770

¹ Williams, G.R.C. : *Historical and Statistical Memoir of Dehra Doon*, (Roorkee, 1874), p. 266

² *Ibid.*, p. 269

The decennial growth with variations and percentages of variation in the population of the district from 1901 to 1971, are given below :

Year	Population	Variation	Percentage of variation
1901	1,77,465	—	—
1911	2,04,584	+ 27,069	+ 15.25
1921	2,11,877	+ 7,343	+ 3.59
1931	2,29,850	+ 17,973	+ 8.48
1941	2,65,786	+ 35,936	+ 15.63
1951	3,61,689	+ 95,903	+ 36.08
1961	4,29,014	+ 67,325	+ 18.61
1971	5,77,306	+ 1,48,292	+ 34.57

In 1971, the district occupied the 49th position in population and 52nd position in area in the State, the same being 3,088 sq. km. according to the Central Statistical Organisation.

The above tables indicate that there has been a continuous increase in population since 1827, the highest being during the decade 1941-1951, when the population increased by 95,903, giving a percentage increase of 36.08. The percentage growth of population during the decade 1961-1971 was 34.57, which was considerably higher than the State average of 19.78. The density of population in the district was, however, only about 187 persons per square kilometre which was lower than the State average of 300.

In 1961 as also in 1971 Dehra Dun was the more populous tahsil. In 1971 the density of population in tahsil Dehra Dun was 211 persons per square kilometre as against 300 per square kilometre in Chakrata tahsil. The density in rural areas of the district was 105 persons per square kilometre and in the urban 1,648 persons per square kilometre. In rural density, tahsil Chakrata (295 persons per square kilometre) stood higher while urban density was higher in tahsil Dehra Dun, viz., 1,784 persons per square kilometre. In 1971, the male population of the district was higher by 74,910 than its female population. The number of females per 1,000 males in the district was 770, which was lower than the sex-ratio of 879 in the State. The sex-ratios in the rural and urban areas of the district were 811 and 726 respectively. The rural sex-ratio was 743 in Chakrata tahsil and 833 in Dehra Dun tahsil. In 1961 the sex-ratio in the different towns was 804 in Dehra Dun town group, 595 in Rajpur, 540 in Landour cantonment, 475 in Rishikesh municipal board, 463 in Clement Town cantonment, 391 in the Mussoorie municipal board and 225 in the Chakrata cantonment.

Immediately after the British occupation of the Dun in 1815 the population was found to contain an abnormally large proportion of

young children and old people. Shore, assistant collector of the district in 1827, had held that the practice of female infanticide "due to the district having been exposed to almost continuous raids by bands of Sikh, Gujar and Gurkha marauders who pillaged the country, massacred the males or sold them into slavery and carried off the handsomest of the females to adorn their zenanas and so to keep a daughter was in a peculiar degree to offer a hostage to fortune, therefore, daughters were neglected in infancy and wives who repeatedly gave birth to girls were repudiated" was responsible for this position. But it is certain that female infanticide does not now exist in the district. Although no satisfactory explanation can be offered for the great excess of males over females and the causes which may have resulted in the disproportion of sexes formerly do not obtain now, the reason may be that people who came to work in the forests or the towns from the neighbouring hill districts do not bring their families with them. Also, in religious places like Rishikesh most of the inhabitants are without their women-folk. This brings down the overall ratio for the district. The sex-ratio figures of the 1961 census for the Rajpur and Rishikesh are revealing and would confirm this supposition.

Population by Subdivisions and Tahsil

In 1971, the district comprised 2 tahsils and had in it 789 villages of which 22 were uninhabited. The number of towns was 9. Tahsil Chakrata had an area of 263.9 sq. km. whereas that of tahsil Dehra Dun had 2,363.4 sq. km.

The tahsilwise break-up of villages and rural population in 1971 was as follows:

Tahsil	Villages		Population		
	Uninhabited	Inhabited	Persons	Male	Female
Chakrata	1	384	73,023	41,895	31,128
Dehra Dun	21	383	2,32,506	1,26,794	1,05,712
Total	22	767	3,05,529	1,68,689	1,36,840

A comparison of the area and population of the district and tahsils, both rural and urban, in 1961 and 1971, is given in Statement I at the end of the chapter.

Immigration and Emigration

According to the census of 1961, as many as 65.1 per cent of the population was born in the district itself, 16.3 per cent in other districts of the State, and 8.9 per cent in other parts of India. Among those from other countries, there were 27,485 from Pakistan, 12,576 from Nepal, 179 from Burma, 157 from United Kingdom and 192 from other countries. The largest number of immigrants was from Pakistan, and are mostly displaced persons.

The duration of residence of 42.6 per cent of the immigrants was over 10 years. The rural areas returned 45.2 per cent immigrants and the remaining 54.8 per cent were returned from the urban areas. Of these immigrants 49.1 per cent were males and 50.9 per cent females.

Of the rural population, 80.9 per cent were born within the district, 11.5 per cent in other districts of Uttar Pradesh, 4.4 per cent in other parts of India, and 3.1 per cent in other countries. The corresponding percentages for the urban area are 46.7, 22.0, 14.2 and 16.9 respectively.

Of the immigrants from adjacent States, 17,975 persons (males 9,344, females 8,631) came from Punjab, 5,310 persons (males 2,620, females 2,690) from Himachal Pradesh, 2,728 persons (males 1,743, females 985) from Delhi, 1,895 persons (males 1,279, females 616) from Rajasthan, 1,409 persons (males 1,096, females 313) from Madhya Pradesh and 1,064 persons (males 754, females 310) from Bihar. The number of immigrants from other districts of Uttar Pradesh was 70,136 (males 39,567, females 30,569).

Displaced Persons from Pakistan

As a result of the partition of the country, some of the refugees from Pakistan found shelter in the district. The number of displaced persons in the district at the time of the census of 1951 was 48,080 (males 25,243, females 22,837), a large majority of whom were concentrated in urban areas, especially Dehra Dun city. About 96.4 per cent of the displaced persons came from Pakistan and 3.6 per cent from districts which could not be ascertained. But in 1961 immigrants from Pakistan numbered only 27,485, most of whom claimed to have been displaced persons. It appears that about 20,000 of the original immigrants from Pakistan later on went out of the district to settle at other places.

The majority of such persons is engaged in different trades and retail business and usually deals in cloth, general-merchandise, grocery, stationery, etc., a few having taken to carpentry and tailoring.

Loans for the rehabilitation of displaced persons were given for over a period of eight years from 1948 to 1956, and a sum of Rs 19,56,351 was advanced by way of loans to 3,023 displaced persons including to two housing co-operative societies.

To provide housing facilities to displaced persons the government constructed colonies at Dehra Dun, Chuharpur and Rishikesh, the number of quarters constructed being about 2,000.

Besides the above, 716 plots in the Race Course colony, Dehra Dun, were also given to displaced persons for construction of houses.

Eighty-five shops were constructed in New Market, 75 in Tyagi Market, Premnagar, both at Dehra Dun, and 25 at Chuharpur.

The refugee camp established at Premnagar in 1948 at an expenditure of about Rs 13 lakhs was converted into a township in 1950, and to provide employment facilities to displaced persons, the industries

department opened a sericulture centre and also sanctioned a loan of twenty-one lakhs of rupees for the establishment of a textile mill in the Premnagar township.

Apart from grants-in-aid to local educational institutions for expansion in view of the additional need the government also sanctioned educational loan to displaced students for higher studies, amounting to Rs 16,290 and stipends to poor displaced persons amounting to Rs 31,665. Financial assistance of Rs 11,855 was also given to the widows for the education of their children and wards.

The distribution of rural population of the district among villages of different sizes, as per 1971 census, is as given below :

Range of population	Number of villages	Males	Females
Less than 200	420	24,811	20,521
200—499	209	34,236	28,062
500—999	71	26,785	21,958
1,000—1,999	37	25,168	20,581
2,000—4,999	25	38,700	29,222
5,000 and above	5	19,539	16,546
Total	767	1,68,689	1,36,840

Thus in 1971, about 52.9 per cent of the district total population lived in rural areas, consisting of 767 inhabited villages. The average population for inhabited village was 398 in 1971 as against 304 in 1961. About 82.0 per cent or 629 inhabited villages were of small size, each with a population of under 500 inhabitants. The medium-size villages with population between 500 and 2,000 inhabitants numbered 108, or 14.0 per cent of the total. About 4.0 per cent, or 30 in number, were the large ones having population above 2,000 persons. Of the total rural population 34.4 per cent were living in large-size villages, 30.8 per cent in medium size and rest of the population i.e. 35 per cent in those villages which were termed as small-size villages. The villages having population above 5,000 were only 5 in number.

LANGUAGE

The different languages returned as mother tongues by the people of the district at the census of 1961 are as given below :

Sl. No.	Language	Number of persons
1.	Afghani/Kabuli/Pakhto/Pashto/Pathani	254
2.	Awadhi	9
3.	Balochi/Baluchi	144
4.	Balti	112
5.	Bashahri	23
6.	Bengali	3,062
7.	Bhojpuri	126
8.	Bhotia unspecified	403
9.	Bihari	620
10.	Binhari	14
11.	Burmese	2
12.	Ceylonese/Simelu/Singhalese	3
13.	Chinese/Chini	14
14.	Dogri	184
15.	English	925
16.	French	36
17.	Garhwali	21,038
18.	Gorkhali	7,444
19.	Gujarati	507
20.	Gujari	266
21.	Gurmukhi	115
22.	Himachali	454
23.	Hindi	2,54,599
24.	Jamauli	887
25.	Japanese	8
26.	Jaunsari	53,900
27.	Jubbali	168
28.	Kanauri	78
29.	Kanjari	185
30.	Kannada	160
31.	Kashmiri	324



[Continued]

Sl. No.	Language	Number of persons
32.	Kumauni	360
33.	Ladakhi	4
34.	Madras	79
35.	Maithili	84
36.	Malayalam	208
37.	Mendeali	160
38.	Mangolian/Mongolian	17
39.	Marathi	580
40.	Marwari	10
41.	Multani	29
42.	Nainitali	19,083
43.	Nepali	19,088
44.	Oriya	76
45.	Pahari unspecified	464
46.	Pashchimi	20
47.	Persian	83
48.	Punjabi	33,165
49.	Purbi	767
50.	Rajasthani	5
51.	Russian,	87
52.	Sanskrit	4
53.	Sindhi	491
54.	Sirmauri	48
55.	Tamil	622
56.	Telugu	271
57.	Tibetan	818
58.	Urdu	25,993

Hindi had been returned as the mother tongue by 59.3 per cent of the population, Jaunsari by 12.6 per cent, Punjabi by 7.7 per cent and Urdu by 6.1 per cent. The number of persons who returned other languages as their mother tongues was insignificant. Hindi was the main language spoken by 57.0 per cent of the rural population followed

by Jaunsari 28.2 per cent and Urdu 8.1 per cent. Among the urban population Hindi (62.0 per cent) and Punjabi (13.7 per cent) were the main languages.

The geographical and racial diversity existing in the district is well reflected in the census returns of the languages spoken. The people of the Dun speak Western Hindi, while the inhabitants of Jaunsar Bawar use what is technically known as the Jaunsari form of Central Pahari. The Nagari script is the most commonly taught in schools and is universal throughout Jaunsar Bawar. The dialect of Jaunsar is almost unintelligible to the people of the plains and is akin to the patois spoken in the neighbouring district of Tehri Garhwal: thus *gad* (a stream), *puihar* (wood), *nyar* (grass), *chiskiya* (burned), *hanuwa* (to walk) are words unknown in the plains.

RELIGION AND CASTE

The population of the district according to the different religion professed here, and as recorded at the census of 1971, is given below :

Religion	Persons	Male	Female
Buddhism	8,014	1,582	1,482
Christianity	6,172	3,425	2,747
Hinduism	4,97,962	2,81,479	2,16,483
Jainism	3,023	1,812	1,211
Islam	46,585	26,429	20,156
Sikhism	20,550	11,431	9,119
Total	5,77,306	3,26,108	2,51,198

Principal Communities

Hindu—Of the total population of the district, 86.26 per cent were Hindus in 1971. The three most important castes of the Hindus of the district are the Rajputs, Brahmanas and Chamars. The Chamars are immigrants from the plains. The Rajputs and the Brahmanas may be roughly divided into highlanders and lowlanders, and the latter again into old inhabitants and newcomers. The highlanders and the old inhabitants of the Dun, are of pure hill origin.

The three principal clans of the Rajputs of the district are Ranghars, Rawats and Bishts. Ranghars (a name sometimes improperly alleged to be inapplicable to true Rajputs) are said to be of Pundir extraction from Saharanpur, and gained a footing in the Dun during the decline of the Garhwal raj. There are very few of them, and these are being gradually absorbed by intermarriage with hill folk.

The Rawats are highlanders, though they claim that 1,200 or 1,300 years ago their ancestors, coming from Sheorajpur, Rawatpur, Maswanpur and Sachendi, in Kanpur, district, took service with the raja of Almora. The raja having died childless, his widow adopted a son of the Sheorajpur raja, who sent four of his relations with the boy to Kumaon. One of these, named Kunwar Jami Bhan, taking offence at some thing, left Almora and emigrated to Srinagar, where he gained the favour of the Garhwal raja. His descendants, therefore, prospered exceedingly, so that, when in later days Ajba Kunwar and Rani Karnawati took up their abode in the Dun valley, as deputies of the reigning prince, and founded the old palace at Nawada, they settled the Rawats at Ajabpur, Karanpur and Udiwala. This tribe inter-married with all the other hill Rajputs without losing caste, a fact clearly distinguishing them from the Ranghar Pundirs.

Another class claiming superiority over the ordinary Pahari Rajput, although belonging to the hills, is the Bisht. The word really appears to be a territorial title equivalent to *thokdar* or *talukdar*. Negi, a term usually placed in juxtaposition with it, and strongly resembling the name of Naga, seems to be their true appellation, and a reminder of their Scythian supremacy in former ages. G.R.C. Williams, relying on a somewhat slight verbal similarity would connect the Negis with the Nagias. *Neg*, however, means a perquisite, and *Negi*, a man who gets perquisites: hence, par excellence, an officer of the government. *Bisht* means noble or respectable, and *Rawat* a ruler. The names *Negi*, *Bisht* and *Rawat*, therefore, denote occupations. They are titles borne by various minor officers during the period of the Garhwal raj.

The other Pahari Rajputs may generally be called Khasiya and are not supposed to wear the sacred thread and their claims to relationship with the warrior class do not even rest upon any plausible foundations of tradition.

There are a few Rajputs at Sahaspur who call themselves Tuars. Next come the Gujars; like the Pundirs, they immigrated from Saharanpur, as invaders in the eighteenth century, and settled near the mouth of the Timli pass, then a great thoroughfare. They retained land at Timli, Kalyanpur, Sobhawala opposite Sahaspur, Tipurwala, Jalaunwala, Shahpur, Dhurmanwala and Purtalpur. Bharuwala and Morthronwala were formerly prosperous Gujar villages.

Besides the Chauhans of Khushalpur and Majra, there are other people, likewise styling themselves Chauhans, who have possibly no right to the name, in spite of their claims to Rajput ancestry, known as Khagi. This tribe is common throughout the Ganga *khadar* in the Saharanpur and Muzaffarnagar districts, and it is exceedingly probable that they followed in the train of their betters, with whom they claim relationship.

The two principal subdivisions of the hill Brahmanas are the Gangaris and Sarolas. The former are, as their name suggests, dwellers by the river Ganga, and the latter acquired importance by providing cooks for the royal family of Srinagar. G.R.C. Williams remarks that the

Gangaris will eat meat and drink spirits, while the Sarolas will not; and that the former are numerous while the latter are decaying. The chief subdivisions of the Gangaris are the Kukretis, Ghildyals and Dubhals, and of the Sarolas, Thaplyals and Nautyals. The names of these subdivisions are in most cases local, being derived from villages in Tehri Garhwal and Garhwal districts granted to their predecessors by the rajas of Srinagar. The plains Brahmanas are for the greater part Sarsuts (Saraswats) and Gaurs. Of the Sarsuts, Dampier writes : "Although now holding many of the plains' villages in the district, these Sarsut Brahmanas are undoubtedly hill Brahmanas in their origin, being the descendants of colonists from Tehri. They are interrelated with many Tehri families and claim to hold offices at the Tehri court. It is true that they allege that they originally came from the plains to the court of Tehri as do also the Rawat Rajputs of Ajabpur, but the evidence on which this claim is based is of the slightest." The claim to a plain's origin is in fact made by all tribes, and the Saraswats are common in the neighbouring districts of the Meerut Division and derive their name from the lost river Saraswati in Rajputana. Probably their ancestors originally immigrated to the hills at the invitation of the rajas or followed in the train of one of the band of adventurers who from time to time established themselves in Garhwal. They descended in course of time to the plains as opportunity offered. The Sarsut is by far the most important subdivision of the Brahmanas in the Dun.

According to the census of 1961, the Scheduled Castes constituted 10.5 per cent of the total population. The important Scheduled Castes in order of population are the Chamars, constituting 46.4 per cent of the total Scheduled Castes population, followed by Balniki (Bhangi) 18.7 per cent, Shilpkar or Dom 16.9 per cent and Pasi 6.3 per cent. They are mostly concentrated in the rural areas and only 3.8 per cent live in towns.

The Doms (Shilpkars) are probably the descendants of autochthons subjugated by the Khasiyas. They comprise classes who do menial work.

Traill describes the Doms as "black, with curly hair inclining to wool, and living in a state of almost universal slavery, probably arising from the fact that the Hindoo settlers from the plains seized some of the aborigines and reduced them to bondage."¹ They are merely hewers of wood and drawers of water.

According to the census of 1971 there were 67,279 persons or about 11.66 per cent of the total population, belonging to the Scheduled Castes of which 37,270 were males and 30,009 females. In the tahsil of Dehra Dun the number of Scheduled Caste persons was 60,793, of which males were 30,740 and females 27,053. The number of these persons in tahsil Chakrata was 6,486 consisting of 3,530 males and 2,956 females.

As many as 26,162 persons belonging to the Scheduled Castes of which 14,746 males and 11,416 females were residing in urban areas and 41,117 persons comprising 22,524 males and 18,593 females in the rural areas.

¹ Williams, G.R.C.: *Historical and Statistical Memoir of Dehra Doon*, (Roorkee, 1874), pp. 80-81

Caste discrimination among the village population of pargana Jaunsar Bawar of tahsil Chakrata, however, continues to be as important and strong as ever in matters of social relations in daily life. Two characteristic features may be noticed in Jaunsar Bawar : one, that the village population is generally multi-caste in structure, and the other that only stereo-typed castes are found in this region and their relative statuses are well defined by tradition. These castes roughly fall into the three following groups : The high-caste group, which includes the Brahmanas and Rajputs, consists of traditional landowners and cultivators. The intermediate castes group embraces in its fold the artisan classes, such as the Badi (carpenter), Sunar (goldsmith), and Lohar (blacksmith), as also the Bajgi (drummer) and the Jogra and Nath (temple attendants and magicians).

The lowest caste consists of the Koltas, the traditional agricultural labourers or serfs. They are also leather-workers and, at some places, are associated with Chamars and Mochis.

As a matter of tradition, the village community here is dominated, both socially and economically, by the Brahmanas and the Rajputs. There is practically no differentiation in status between the two, but they form two different castes despite occasional inter-marriages between them. In the case of inter-marriages, the children belong to the caste of their father. It is rather difficult to assess the inter-relations and relative positions between these castes and the Brahmanas and Rajputs of the other regions of India, but they generally receive due respect from their neighbours and outsiders who come in contact with them. It is worth mentioning that Rajputs have a numerical superiority over Brahmanas as well as over other castes. In fact, they form an absolute majority in most of the villages and in the total population of Jaunsar Bawar as a whole. They call themselves Khosh or Khasa, and are also known locally as such. They (Khasas) have a fair complexion, tall stature, aquiline nose and well defined features. Grierson has observed: "there was a group of tribes one of which was called Khasa, which were looked upon as Kshatriyas of Aryan origin. These spoke a language closely allied to Sanskrit, but with a vocabulary partly agreeing with that of the Eranian Avesta. They were considered to have lost their claim to considerations as Aryans, and to have become Mlechhas or barbarians owing to their non-observance of the rules for eating and drinking observed by the Sanskritic people of India. These Khasas were a warlike tribe, and were well known to classical writers, who noted as their special home, the Indian Caucasus of Pliny."¹ The Brahmanas have no other appellation.

As regards racial affiliation, the so-called high castes show a general resemblance to their equals in the plains, with the characteristics popularly known as 'Aryan' features. They claim to have immigrated from Kashmir or the north-west in ancient times, though some immigrant families from the neighbouring districts or States can also be found. The lower castes, especially the Bajgis and Koltas have been regarded

¹ *Census of India 1961, Vol. XV Uttar Pradesh, Pt VI, Village Survey Monograph No. 24, Village Chapnu, tahsil Chakrata, District Dehra Dun, (Allahabad, 1965), p. 4*

as aboriginals or belonging to an earlier wave of immigrants. They often have features which may be regarded as derived from the Proto-Australoid strain, though mixed features are not uncommon. At any rate, there exists little certainty about their origin, or of the origins of other intermediate castes in this region.

It may be added here that, whatever origins may be attributed to various groups of people in this area, they seem to have been isolated from the people of other areas to a great extent and for quite a long time. They themselves, therefore, formed an integral multi-caste community with defined relative status, mutual relationship and inter-dependence. They also established among themselves certain peculiar customs and usages in matters of social organisation, including the system of family and lineage and the village organisation, occupational patterns etc., as well as socio-religious rituals, supernatural beliefs, and festivals. It appears that when this community (Jaunsaris) came into contact with outsiders, the latter often ridiculed them on account of their curious customs. There seems to have been much misunderstanding or lack of understanding of the local culture patterns.

It has also been noticed that cultural contacts have from time to time brought about changes, especially in the border areas and near Chakrata. Of late, various efforts have been made both by the government and the public to develop and ameliorate the living conditions of the people of Jaunsar Bawar.

Improved roads and other means of transport and communication have largely increased the contacts between the local people and those of other areas, particularly since the implementation of community development programmes in Jaunsar Bawar, in 1953. As a result, changes in the way of thinking, in worldly knowledge, in the ways and means of life among the people and in the culture pattern as a whole have taken place and are being speeded up.

The intermediate castes do not form a homogeneous group, but may be lumped together for practical purposes. Relatively speaking, there is much less sharp difference in social position or in matters of discrimination amongst themselves, but they are distinguished from the high castes on the top and the low castes at the bottom of each hierarchy. Nevertheless, the differences both in the functions and in the social positions among various castes of this stratum are appreciable. The highest among them are the Badi and Sunar, who are treated as equals, while the Lohar and Bajgi are regarded as much lower. The position of Jogra and Nath is not quite certain and the distinction between them is sometimes not clear. Generally, however, they are treated as somewhat higher than Bajgis, but lower than Badis. Badis are practically the professional carpenters-cum-masons and experts in house construction. They are, in fact, also owner-cultivators and are well-off in terms of local standards. In the caste hierarchy, they come just next to Rajputs, though they do not belong to the higher caste. Sunars are the traditional goldsmiths. The Jogra and Nath of Lakhamandal were professional guides, escorting pilgrims to sacred places like Yamnotri, Badrinath and Hardwar. They also served the village community as 'Maha

Brahmins,' and received gifts (*dan*) at funerals. In Lakhamandal, the position of the Jogra was regarded as even higher than that of the Badi. Jogras were also known as Naths, though the Nath residing elsewhere, in Lohari for instance, had a much lower social position. They claimed to have descended from the earliest settlers who came to the village prior to the arrival of the ancestors of the Rajputs to these parts. Like the Jogra, the Nath may do religious service and accompany pilgrims. They may also be magicians and medicine men. Some of them have taken to agriculture, and a few have learned tailoring and recently acquired sewing machines with the help of the community development projects. At any rate, both Jogra and Nath are minority groups in the population and are not found in all villages.

Bajjis are the professional drummers and also the barbers and tailors of the village. They are found in every village, since they have to play music not only on the occasions of marriages, births, deaths and festivals, but also in the temples. However, they are often a minority group among the village population and occupy the lowest position in the intermediate caste group.

The low-caste group is formed by the Koltas, who are the traditional serfs or landless labourers. They are invariably found in each and every village of Jaunsar Bawar. They not only supply labour in agricultural operations to high-caste zamindars of the village but also serve the village community in various other ways, such as messengers, skimmers of dead animals, removers of dead bodies, and also as leather-workers, weavers of rough woollen cloth and carpets, and makers of shoes.

Among the Koltas themselves, there are two subdivisions; the higher one is equated to or merely known as Chamar, and the other and lower one as Dom. The Kolta families of village Baila, for instance, are said to belong to the lower section, the Doms, whereas those of Lakhamandal label themselves as Chamar and Mochi. They do not intermarry with Doms, nor will they take food and smoke hookah at a Dom's place. It appears that the caste affiliations of Dom and Chamar have been adopted recently or given them by the higher castes. The Chamars do not eat the meat of a bear, which they call jungle dog, whereas the Doms do. Both Chamars and Doms, however, take pork as well as beef.

The Koltas had been living in a form of virtual slavery and semi-starvation. They and their wives and children were engaged by the zamindars as whole-time domestic servants, ploughmen and herdsmen. They were provided with daily food, poor clothing and miserable houses. Most of them were attached permanently to their respective zamindars but were liable to transfer to other zamindars. The system of virtual slavery was perpetuated by the continuing indebtedness to the zamindars which the Koltas could never clear off. The zamindars used to pay the expenses of their marriages and ceremonies but write it up against their names as debt, which was passed on from father to son. According to the customary law as laid down in the *dastur-ul-amal*, drawn up by Ross in 1851, and the *wajib-ul-arz* drawn up at the Settlement, owning of land by the Koltas was prohibited. The

were not allowed any rights in land but with the enforcement of the Jaunsar Bawar Zamindari Abolition and Land Reforms Act, 1956, on July 1, 1961, they have all become *sirdars* now.

Muslims—There were 46,585 Muslims (26,429 males and 20,156 females) in the district, in 1971, and constituted about 8.07 per cent of the total population of the district, about 10 per cent residing in the rural and 6.0 per cent in the urban areas. In 1961, their number in the district was 34,899 (20,863 males and 14,036 females).

The Muslims of the district are the descendants of the early Muslim immigrants, the Sheikhs, Saiyids, Mughals and Pathans (Rohillas), and of converts to Islam. The Pathans first appeared in the district with Najib-ud-daula and his Rohillas (1757). Since then there was a constant influx from Delhi, Saharanpur and other neighbouring districts of the plains. Many were attracted by work in the forests, tea plantations, or domestic and other services in Dehra, Mussoorie and Landour.

Other Muslim castes in the district are generally occupational, such as Ghosi (milkman), Julaha (weaver), Banjara, Nai (barber), Mallah (boatman), Qassab (butcher), Bhishti (waterman), Bhatiara (inn-keeper), Lohar (blacksmith), Manihar (maker or seller of glass bangles), Fakir (darvesh), Behna and Kunjara (vegetable seller).

Sikhs—The number of Sikhs was 17,904 (males 10,339 and females 7,565) in 1961. Their number had increased to 20,550 in 1971 including 9119 females. The history of the Sikhs of Dehra Dun may be said to date from the close of the seventeenth century when Ram Rai, the famous Udasi Sikh, retired to the Dun, after his failure to obtain recognition of his claims to succeed his father as Guru, and founded a sect of dissenters. He at first resided at Kandli on the western side of the river Tons, but ultimately moved to Khurbura (now included in the modern town of Dehra) and built the temple named after him at the neighbouring village of Dhamawala. His presence soon attracted numerous devotees and a flourishing town, called Gurudwara or Dehra, grew up around his dwelling.

In spite of the fact that Guru Ram Rai selected his abode in a secluded valley of the Dun, his followers from different parts of the Punjab used to pay homage to him after undergoing all the troubles of coming over to this part from distant lands bare-foot, a practice which is still in existence.

Jains—In 1961, the Jains were 2,617 in number (1,050 males and 1,567 females). At the census of 1971, their number was 3,023 including 1,211 females. They mainly live in the towns.

Buddhists—The number of Buddhists in 1961 was 452 of whom 281 were males and 171 females. They mainly live in the towns. With the influx of Tibetans since 1962 a large number of them have been engaged in wool-weaving industry. In 1971, their number had increased to 3,014 of whom 1,532 were males and 1,482 females.

Christians—The Christians of the district who numbered 4,594 in 1961, belong mostly to the Roman Catholic and Protestant sects. Their number at the census of 1971 was 6,172 (3,425 males and 2,747 females). Their missionary affiliations are the Methodist, the Anglican, the Presbyterian and the Roman Catholic. To the Christians goes the credit of establishing a large number of educational institutions in the district.

The Arya Samaj is in Dehra Dun also a community of increasing importance. In 1904 the foundation of the D.A.V. College (a prominent institution of the Arya Samajists) was laid. In 1961 they established the Dayanand Brijendra Swarup Degree College in the district.

Religious Beliefs and Practices

Hindus—As many as 86.26 per cent of the population of the district are adherents of Hinduism which is a collection of diverse beliefs and practices ranging from animism and polytheism to absolute monotheism which identifies the individual soul with the ultimate reality. The upper classes of Hindus in the Dun generally worship the *panch devatas* (the five gods)—Siva, Vishnu, Surya, Ganesha and Shakti (Devi or Durga). The bulk of the people is devoted to Siva or Kedara who is the presiding deity of this region, and perhaps has been the favourite god of the mountain people from times immemorial. Rama has a local celebrity also, for he and his brother, Lakshmana, performed austerities at Rishikesh and Tapoban on the banks of the Ganga, where temples have been erected in honour of Bharata, a brother of the two heroes. In the rural tract, the principal gods are sometimes neglected in favour of village godlings. The shrines of some or all of the seven mothers (*mata*) of disease are among the most frequently met within the villages, especially those of Shitala Devi. Shrines of Masan (the god of cemeteries), are occasionally found in conjunction with these *mata* temples. A few shrines of Bhure Singh, one of the three snake gods who have a considerable vogue in the Punjab, are common in the Dun too. Rude temples erected to the Pandava brothers (also connected by legend with the Dun) are very common in the sub-montane and hill villages. They are easily recognizable by the small clubs deposited on them; these are used by the worshippers in the mimic dance performed in honour of the heroes of the Mahabharata War. Famous shrines of Kali or Devi are found at Rajpur and Santaugarh (a hamlet of Guljwari); the latter is a landmark for miles around in the Dun.

The culture of the Khasas of Jaunsar Bawar has been deeply affected by their contacts with the Doms, the aboriginal elements in the population. While the Khasas claim to be Hindus and have recently been adopting Hindu surnames and trying to establish connection with the Rajputs and Brahmanas of the plains (their contacts with outsiders have taught them the importance of their claims), their social life as well as their beliefs and practices connected with their religion are somewhat different than those of the Hindus of the plains. They remarry widows, practice levirate, sororate and polyandry, recognise divorce as legal, and as against the Hindus of the plains intermarriage between the various Khasa groups is not tabooed and children born of such marriages do

not suffer any social stigma. While they worship Hindu gods and goddesses, they have a partiality for worship of the spirits of their ancestors, demons and gods and that of stones, weapons, dyed rags and certain symbols. On the other hand, their customary rites in the temples, the manner and mode of offering sacrifices, the daily religious performances in the temples, 'the dim lighting, the burning of incense, the mysterious incantations and singsong monologues,' all indicate Hindu origin and tradition in ritual and temple worship. The sun, the moon and the constellations are their gods. The sun is male and the moon female. The moon's pride on account of her greater beauty and her insulting behaviour towards the sun on that score, provoked the latter's wrath; his curse had the effect of disfiguring the moon's face resulting in spots which are said to be marks of leprosy to which the people are often victim. The Hindu belief that the earth rests on the head of a snake, 'Sheshnag,' finds its counterpart in Jaunsar Bawar and earthquakes are believed to be caused by the periodical movements of the giant snake.¹

Among the Khasas, the sun and moon are said to have borrowed money from a Dom, but the interest swelled to such great amount that it could not be paid and the debt was repudiated. The Dom, on that account, often worries them by 'throwing a skin on their faces'. Though the average Khasa is always in debt, the stigma attaching to persons of higher castes who borrow from the Dom is great in Jaunsar Bawar, and the elders belonging to the higher castes severely frown upon such practice in the village. The customary raising of *menhirs* and other stone memorials among the Khasas appears to be relic of a megalithic cult which is an important feature of Austric culture. It is customary to construct a terraced platform near a public thoroughfare on which is placed a single upright stone to commemorate the dead.

The belief in the transmigration of souls and in the doctrine of metempsychosis is, however, an important feature of their religious life. They believe that the soul has to pass through as many as eighty four lakhs of forms, including those of animals and insects before it is granted the human birth. The activities of man on earth are carefully recorded by Yama whose messengers have to present the souls before him. As Dharmraj, Yama then determines the form which a particular soul must pass into, in accordance with its merits earned on earth.²

Their religion thus is a blend of Hindu and tribal beliefs and practices, and a functional analysis of this fact provides interesting material. Nowhere perhaps are magic beliefs and religious practices so closely interlaced as in Jaunsar Bawar. Faith in magic endows certain advantages to these simple-minded hill people, by giving them confidence in times of danger or crisis, and by providing them at times and mysterious, or supernatural incentive for otherwise difficult organised undertakings. Not only in the main occupations of these people like agriculture and wood-cutting, but also in their ordinary day-to-day life, magic

¹ Majumdar, D.N. : *Himalayan Polyandry*, (Bombay, 1962), pp. 249-250

² *Ibid.*, p. 250

is deemed potent and effective. The significance of the evil eye or the evil tongue is fully recognised by the people of Jaunsar Bawar and oaths and ordeals have an importance hardly paralleled in any other society. They believe it to be entirely possible to effect injury to persons or to cattle or both by mere magical incantations, to cause death in a family by mere cursing, and even, to cause houses to be burnt through power of sheer magic. In some civil disputes, the defendant in a money suit keeps the sum of money involved before the image of the goddess *Kali*, or in any temple dedicated to their great god, the Mahasu *devata*, and the plaintiff is challenged to take the money. Alternatively, should the defendant want to prove that the money he owes has been paid by him, he affirms this by just drinking the water in which the feet of the *devata* are dipped, and this is taken as conclusive evidence that the money has been paid by the defendant. In other cases, the plaintiff will light a lamp in a temple and the defendant has to put it out proving thereby that he has paid the amount due from him. If a villager bears a grudge against his neighbour and wants to harm him or his effects, he takes a clod from his field, lays it on the altar of Mahasu, and prays for an immediate judgment. Should this neighbour meet with any accident or domestic trouble, he must leave his field, as otherwise the god invoked by his enemy may cause greater calamities to befall on him. The consequences of dishonesty and false statements on oath are believed to be terrible as every person fears to be affected with insanity or leprosy, or some great calamity befalling his family, or himself dying an unnatural death within a short period should be commit such an offence.

Some persons are supposed to possess some wicked powers, either inherent or acquired. For example they are known to abuse people and curse them on the slightest pretext and the belief is that their *ghat* (swearing) can usually do very effective harm. There are certain gods whom they generally invoke for help in their nefarious designs against others. One such evil spirit is Narsin who is extremely mischievous and is readily invoked to harm or destroy cattle and crops and to afflict people with diseases. The village *baki* (diviner) has to get in touch with this spirit and propitiate it whenever it is suspected of these evils. Though it is a criminal offence in Jaunsar Bawar to call any person a 'witch', it is commonly believed in these parts that witches exist, and whenever any person meets with misfortune or contracts any serious illness, and if the members of his family may suspect any woman, young or old, to be responsible for it she is dubbed a witch. Thereafter, she becomes an object of close attention in the village and her family is branded as antisocial and consequently segregated from other families in the village.

The incidence of infant mortality is pretty high in Jaunsar Bawar, and this is said to be due to the influence of certain evil spirits. These are always after children and pregnant women and their attention is followed by disease and death of their victims. There are people especially versed in spirit lore who utter magic words and blow ashes over the child or woman believed to be affected by spirits and this is considered potent enough to cure the affliction. When a pregnant woman falls ill, it is believed to be due to the mischief caused

by certain evil spirits and she has to undergo a course of treatment prescribed by the *baki* or *ghadiala* (witch-doctor). With her hair dishevelled and forehead painted lavishly with vermilion, she is made to sit near the witch-doctor. The latter takes a bell-metal plate in his hand and starts beating it in tune, uttering simultaneously a number of incantations in a peculiar singsong tone. After half an hour or so, the woman feels heavy and starts shivering, indicating thereby that the spirit has entered her person. The woman shows signs of greater animation and moves her limbs to and fro, attempting to rise on her toes and eventually starts dancing to the tune of bell-metal music. Soon she forgets herself, her husbands and relations, and is metamorphosed, as it were, into the spirit which has taken possession of her. The *ghadiala* (witch-doctor) addresses the spirit in the woman and the latter answers on behalf of the spirit. The source of the attack, the name of the spirit, the necessary offerings and sacrifices that would appease it and any particular direction as to the manner and mode of disposal of the offerings are mentioned by the possessed woman and it is believed that as soon as these are complied with the spirit possessing her leaves her. The spirit, however, leaves the victim in a spectacular manner. The woman shrieks, or strikes herself with some stick, or makes a violent attempt to escape and is often forcibly brought to rest by the people present.

When epidemics invade a village, the resources of the village are freely requisitioned by the headman concerned and custom prescribes an *astabali* (sacrifice of eight lives) to appease the godling of disease. Five different approaches to the village are selected for the purpose and at each approach an improvised bamboo gate is erected. At the centre of each gate is fixed the wooden effigy of a monkey and a vertical slab of stone (*menhir*) is firmly fixed in the earth. The *menhir* is crowned with a large round stone and two pieces of wood with flattened ends are tied on either side of the upright slab, the whole thing resembling a human figure from a distance. Five different sacrifices are offered at the five approaches to the village. At one, a goat is killed and buried near the *menhir*, at the second place a sheep is similarly sacrificed and buried, a hen and a pig are sacrificed at the third and fourth approaches respectively, while at the fifth, they cut a pumpkin into halves and bury the parts. After the sacrifices at the selected places all the villagers assemble in the yard of the temple where a sheep and a vegetable (*gindoro*) are further offered as sacrifice. The *gindoro* is cut into pieces and the sheep is killed and given to Doms. A goat is sacrificed in the name of the village and the meat is distributed. The elaborate rites of *astabali* are performed only when a major calamity is feared and the efficacy of this prescription is seldom questioned by the villagers. The village priest is in charge of this ritual and he recites hymns and prayers as well as magical incantations all the while to invoke the assistance of the gods.

The Jaunsaris do not appear to be much concerned with rewards and punishment in the world to come, but they observe a code of conduct which, if followed, is believed to pave the way to a prosperous life in this world and uninterrupted bliss in the next. These refer to their food, sleep and sacrifice. They must not drink pure milk and they

should abstain if possible from butter; butter is better burnt in the temple of the gods. It is on ceremonial occasions and festivals only that they may eat butter after it is offered to the gods, and they should not sleep on beds with four legs; the usual practice in Jaunsar Bawar is to sleep on a wooden floor.

All important activities are safeguarded from interference by evil forces by a system of protective magic.¹ It is true that the efficacy of these magical rites is being trusted less and less by the people, but there has not been any serious challenge to the traditional codes of conduct so far as it relates to the observance of protective magic rites. When they build a new house, they have to protect it from destruction by fire, or from calamities that may fall on the inmates; the usual practice is to sacrifice a goat or sheep to the evil spirits and the blood is sprinkled around the house. When a bridegroom returns home with the bride, and before the couple is allowed to enter the house, some relative, usually the maternal uncle, throws down from the roof of the house a live sheep in front of the couple below. The relatives and friends of the couple tear off the flesh and bones from the animal and there is a scramble among them for the heart and liver of the sheep, which when eaten raw ensures good luck to the eater. The bride and the bridegroom are then allowed to enter the house.

When the harvests are brought home or the first sowing takes place, the evil spirits are propitiated by individual families. Also a common sacrifice is made by the village to undo the evils of magic. Human sacrifice is non-existent, but the efficacy of it in theory was not denied by the older Khasas.² The custom of rope-dancing, which formed an important annual festival in these parts, has become obsolete as it has been forbidden by the administration on account of risk to life involved in the process. But in times of agricultural calamities, occasioned by the vagaries of rainfall or by insect pests and diseases of crops and cattle, they still remember the olden days when the annual *bedwart* (rope-dancing) provided the necessary safeguards against such supernatural visitations. Other magico-religious rites include naked dances before sowing, during the growth of the crops and after harvests. Playing with red hot iron rods, swallowing burning charcoal and such other ordeals are some of the other precautions designed to safeguard their material prosperity and domestic bliss.

The centre of religious life of the people of Jaunsar Bawar is at Hanol, where the Mahasu temple is situated. The Hanolians are not orthodox Hindus, neither do they practice orthodox Hinduism. Mahasu *devata* is their chief deity and a large majority of their beliefs and rituals centre round Mahasu. Like the Hindus, in general, the villagers believe in a supreme god, Mahasu in their case, but they also worship Rama and Krishna. Every morning grown-up men stand with folded hands in front of the door in the temple quadrangle where an idol of Mahasu is kept and pray to him. In the evening, women of the village request the priest to give them a little of the ghee from *artipatra* and with this they smear

¹ Majumdar, D. N. : *Himalayan Polyandry*, p. 258

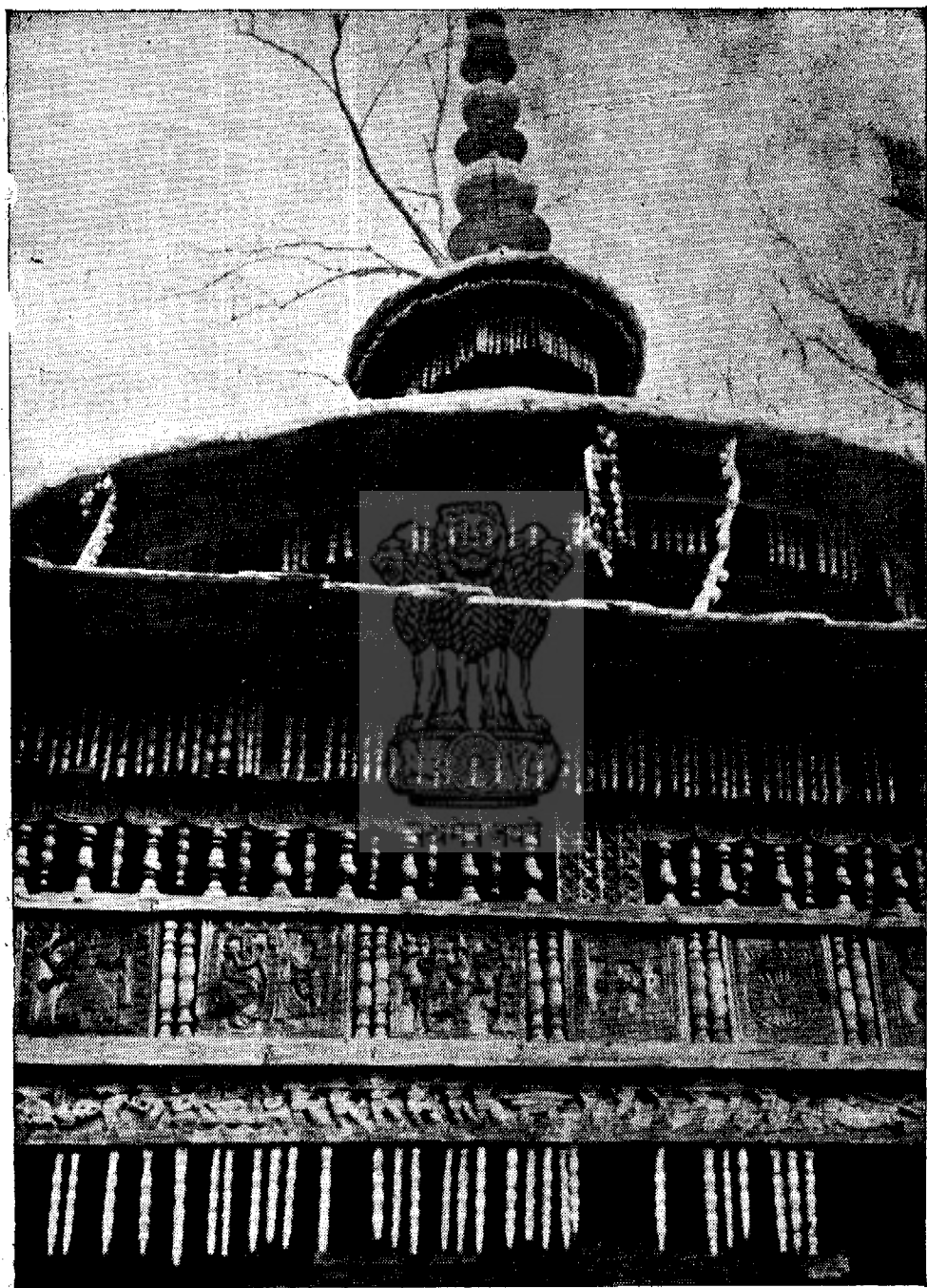
² *Ibid*

the forehead of each member of the family when the time to retire draws near. It is Mahasu *devata* who possesses the 'seers' and *bakis* and tells the people how to overcome diseases and natural calamities. Mahasu is a powerful god, for it is he who sanctions the order of social precedence in Jaunsar Bawar and controls the behaviour of castes. The Bajgis do not till the land as this may incur the displeasure of Mahasu. The *devata* is the traditional witness to oaths, and *chhinga* or *barjan*, the customary methods of expressing tension and social disapproval. The following example will illustrate this. Traditionally, the rights of granting trees and timber to the inhabitants of Dangutha and Aithan were vested in the *sayana* (the village headman) of Aithan. But some time back, the Koltas of Dangutha approached the subdivisional magistrate of the area to allot them separate trees in the jungle exclusively for the inhabitants of Dangutha. Their request was granted and an intimation of this was sent to the *sayana* of Aithan. It happened that some inhabitants of Aithan were dissatisfied with their *sayana*. The Koltas of Dangutha were also antagonised by this *sayana* as he did not inform them that their request had been granted. Thus, an alliance was affected between the dissatisfied sections of the two villages on the basis of *lota-pani*. Each of them took a *lota* of water, put a little of salt in it and took a vow, 'by making Mahasu Devta a witness, we promise, if we betray each other in our understanding, we should perish as salt gradually dissolves in water. We promise that we will not accept timber, through the present *sayana* of Aithan.' They proposed another man's name as the *sayana* of Dangutha.

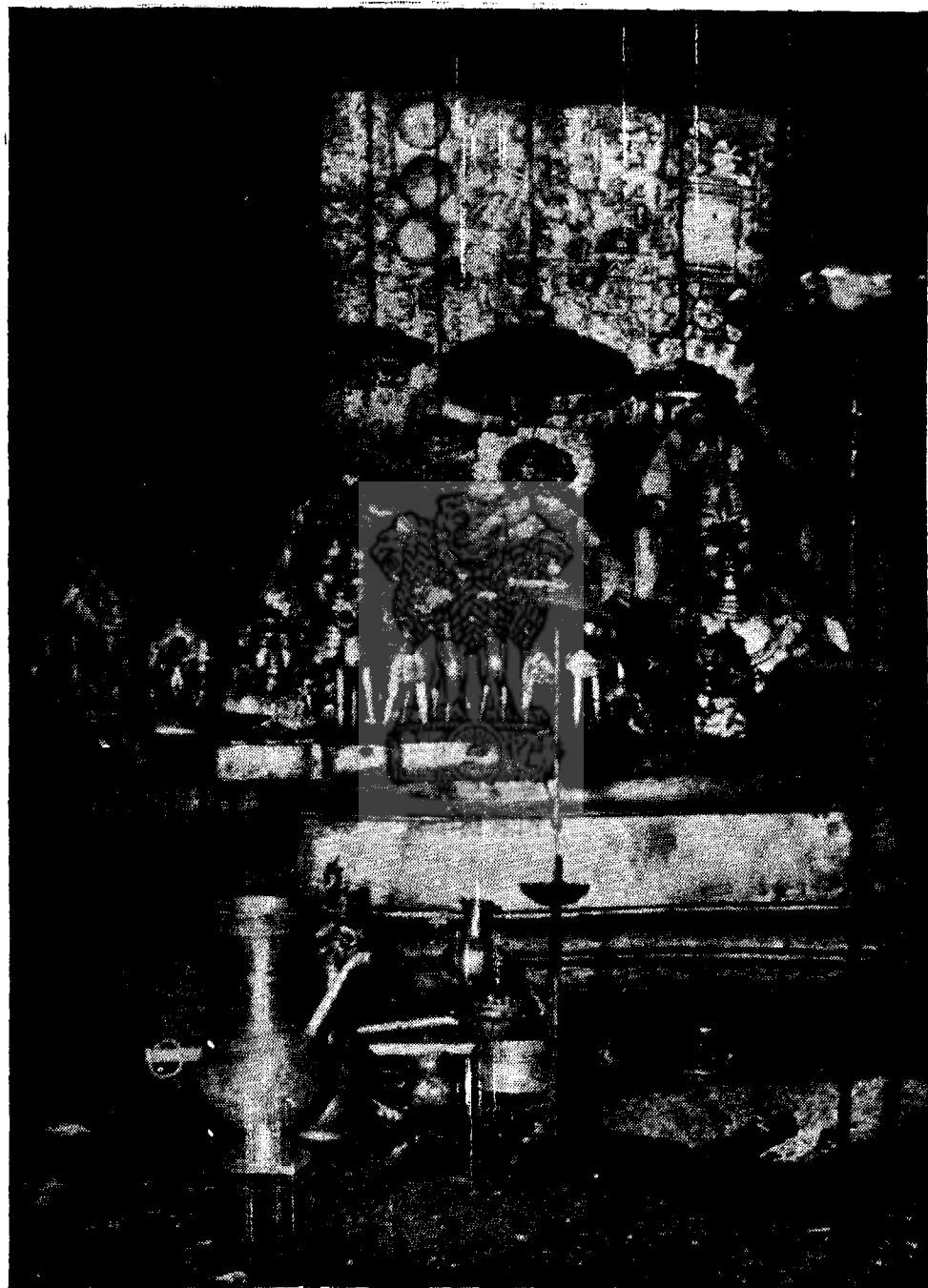
On the other hand, some inhabitants of Dangutha sided with the *sayana* of Aithan and thus complicated the problem. The forest ranger was ready to accept another *sayana* to distribute the timber among the inhabitants of Dangutha, but the unwillingness of a section of the population of Aithan, bound by oath not to accept anything from the old *sayana*, acted as a hurdle. The ranger had no alternative but to hand over the job of distribution for both the villages to the old *sayana*. Ultimately both the *partes* realised that it would be better if both the villages had separate *sayana* who could effect the distribution of the annual grants for their respective villages. But the *lota-pani* oath stood in the way, and its breach was feared to bring about the wrath of Mahasu *devata*. The only remedy, therefore, was to go to Hanol, sacrifice a goat there, and request the *devata* to excuse them for going back on their promise.

The story of Mahasu is quite interesting. It has been described by Atkinson in the following words :

"In Jaunsar Bawar, there are four deities known collectively as the Mahasu deotas, Basak, Pibasak, Buthiya or Baitha and Chalta or Chalda. The first three abide in temples dedicated to them at Hanol in *khat* Bawar, at Tahnū in *khat* Panjgaon and at Anwar. The fourth or Chalta Mahasu took up his residence at Behrat in *khat* Kuru and moves from *khat* (subdivision) to *khat* as occasion arises. These deities came from Kashmir some four or five hundred years ago in this wise :—Una Bhat lived in *khat* Mendrat and had a large family of relatives and dependants. At this time, a demon named Kirbir Dana



Wood carving at top (*shikhar*) of Mahasu Temple, Hanol, Dehra Dun



Dieties inside Mahasu Temple, Hanol, Dehra Dun

(Danava) made his appearance at the confluence of the Tons and Jumna near Kalsi and day by day ate some of Una's people until only Una, his three sons and one daughter remained. Una fled to the forest of the Jumna and wandered about from place to place seeking means to destroy the demon and revenge the death of his relatives. One night the debta Mahasu appeared to him in a dream and said :—"Be of good cheer, O Una, proceed to Kashmir where the four Mahasus dwell and invoke their aid, they will destroy the demon, for no one else can." Una set out for Kashmir the next day and arrived at the place where the watchman of Mahasu lay fast asleep with two great iron clubs some hundred maunds in weight beside him. No one could approach Mahasu without the watchman's permission, so Una took up one of the clubs and placed it at the foot of the sleeping watchman, who soon awoke and demanded the name of the intruder and his business. Una at once answered :—"Mamu, I am thy nephew." The watchman replied :—"Bhai, you are not my nephew, but as you have chosen to address me, what has brought you here ?" Una told his story and the watchman dissuaded him from attempting the perilous journey, but finding Una resolved to proceed, gave him some rice and lentils and told him that he should first reach the forest of Ghagti and if troubled by storms, a handful of the rice and lentils sprinkled in the air would cause the storm to abate. He would next reach Kanani Tal or lake of Kanana, into which he was to spit and throw some of his hair. If his saliva turned into cowries and his hair into snakes, he would know that he was in the miracle working land of Kashmir. There were but two dwellings in the great plain, one of the Mahasus and the other of Kelu Bir, an attendant and athlete. On Saturday he was to hide himself in Kelu Bir's house and about ten at night the four Mahasus might be seen arriving in palanquins and retiring to their house to rest. Early in the morning, the Mahasus went out to the sound of drums : first Basak to hold his court, then Pibasak, then Baitha and then Chalta. When the last came out Una should go to him and lay his case before him and be guided by his advice.

"Una followed the instructions of the watchman and his petition was favourably received by the Mahasus, who eventually told him to return to his own country and they would destroy Kirbir. Chalta gave Una a handful of rice, an earthen vessel and his own staff, and told him that when hungry he need only strike the staff on the earth and water would come forth with which the rice might be prepared for food. This, too, would prove that Mahasu was with him, and if in addition when he arrived at Mendrat he threw some of the rice into the Tons, Kirbir could do him no harm. On the first Sunday after his arrival he should yoke an unbroken heifer to a plough and have it driven by an unmarried boy who had never before driven a plough and he would find that the plough would turn to gold and the share to silver. He should then plough five furrows, in each of which a stone image would be found representing the four Mahasus and their mother, Deolari. Una on his return, did as directed and the images appeared in the furrows. Basak appeared first with his thigh transfixed by the ploughshare, then came Pibasak with a wound in his ear and then Baitha with his eye injured. Chalta alone appeared sound and free and hence the three first remain in the temples dedicated to them whilst Chalta is able to move about,

Deolari, the mother, appeared in the fifth furrow and a temple to her name was erected in the field. Una worshipped the Mahasus and ordered his youngest son to serve them. He obeyed and became a Deo-pujari. The second son was directed to strike a gong and became a Rajput, while the third became a musician or Bajgi. Then the Mahasus formed a garden (*gangari*) and filled it with narcissus plants from Kashmir to serve as offerings to them on festivals. Una then built houses for Kelu Bir, Kadasiri Bir, Sakrar Bir, and sixty-four other Birs, who attended the Mahasus. The Mahasus then sought for Kirbir, but as he did not appear, Sakrar was sent to seize him, and was promised a loaf and a sweetmeat on every Sankrant should he be successful. Kirbir still remained at large and Kelu Bir was then sent with a promise of four times the amount of offerings and that all goats sacrificed to the Mahasus should be killed at the door of his house. Kelu killed Kirbir and hung up his head in Mahasu's temple. Basak and Pibasak took Garhwal, as their share and Jaunsar Bawar fell to Baitha and Chalta. The temples to the Mahasus in Jaunsar were built by the zamindars long after Una's time. There are temples to Sangru at Mandhan in *khat* Koru and Udpalta, whence he is carried about *khats* Samalta, Udpalta, Koru and Seri. The temples of the Mahasus are now served by Sarsuti Brahmans and the offerings consist of male kids, coin, rice, water and narcissus flowers."¹

The temple at Hanol in which Baitha Mahasu is installed has a long tunnel-like structure just at the entrance of the main gate. It has four apartments. Musical instruments and various other belongings of the temple are kept in the first and the second apartments respectively. Pilgrims are usually received in the second apartment. The third and the fourth being the darkest, they are visited but on rare occasions. Baitha Mahasu is installed in the fourth and only the Pujagi (priest) can enter it. The flashing of torch light is not allowed. At the time of *arati*, when the silver plates shine, something seems to be written on them. Besides, there is a large collection of coins donated by different kings and officials.

In the temple quadrangle, various small round and elongated godly attendants and gods and goddess of a lower order have been installed in miniature temples. The temple is a centre of pilgrimage for visitors from Jaunsar Bawar, Jubbal, Utroch, Sirmur, Garhwal and other places in Himachal Pradesh. The expenses of the temple were shared by all the former princely states, which owed allegiance to Mahasu *devata* of Hanol. One or two fields in every village are kept for Mahasu, and their produce is collected by the temple managers. Final authority regarding temple affairs rests in an official known as Wazir. The Pujagi (the priest), Thani and orderly are three more servants of the temple. The orderly is a Rajput by caste and he acts as a menial and an attendant. The Thani, too, is a Rajput and is a helper of the priest. Every pilgrim who comes to Hanol is entitled to one meal from the temple storehouse and it is the duty of the Thani to provide it. Representatives of the Wazir, Thani and the village Kolta often go out once a month to collect *kert* (the grain given in the name of the god). The measure which

¹ Atkinson, E.T.: *The Himalayan Districts of the North-Western Provinces of India*, Vol. II, pp. 886-889

is used for weighing grain is a silver cup known as *sorha*. This is equivalent to one *patha* and contains more or less one seer of grain. Pujagis are supplied from the Brahmana families of Chatra, Pultarh and Nenus. Each family is entitled to share the priesthood. Each family is allotted certain days in a year during which it has to send one person of the family who comes and resides in the temple and lives on only one meal a day. This meal is provided from the storehouse. The Pujagi is usually the eldest brother of the family for whom elementary learning is forbidden. The Pujagi learns the methods of worship from his predecessors. Whenever a priest family splits up, the days allotted to it are also divided amongst the separating members. Like the Pujagi, the office of Thani vests in certain Rajput families, each of which sends its representative for a specific tenure of office. Out of every rupee donated by a pilgrim fifty paise go to the Wazir and twelve paise each to the Bajgi, Nath, Thani and Pujagi. Chalda (Chalta) Mahasu keeps moving or touring with his train of hierarchical managers and servants. He lives for twelve years, alternately, in Garhwal and Jaunsar Bawar. While at the latter place he moves from village to village according to tradition and is installed in tents in every village. He is in charge of local Bajgis who take him and every village that falls in the itinerary has to provide for the maintenance of the whole party. The Wazir of Chalda Mahasu resides in Garhwal. Grains for this Mahasu also are collected from villages and all the donations are distributed in the usual way.

Basak Mahasu is also a moving deity. But he keeps moving within the four villages of Rarhu, Kunrhan, Bagi and Hanol. He stays in each village for a year and comes to Hanol only during the leap year.

Pibasak Mahasu is the presiding deity of Tehri Garhwal region but he comes to Hanol every year for a day and is worshipped like other Mahasus. Some gods of the lower order also find mention in Jaunsar Bawar. One such deity is Narsingh, whom the Hindus worship as an incarnation. He is regarded as the saviour of Prahlad and slayer of Hiranyakashyap. But whereas in the plains he is considered to have the head of a lion, in Jaunsar Bawar he is imagined as a Sadhu who is ferocious because he wraps himself in a lion's skin and rides on a lion's back. Ordinarily, he does no harm, but he becomes furious if leather articles are taken to his temple. He may then possess the violater and even cause his death. He is appeased by an offering of milk.

Bhairon, the next important among the gods of the lower order, rides on the back of a black dog like his counterpart in the plains. Both are supposed to render valuable help if invoked and propitiated. For both of them a black dog stands as a symbol and, therefore, a black dog is never killed but regarded with due reverence. In Jaunsar Bawar, worship of Bhairon is usually accompanied by the sacrifice of an ewe. Local Bajgis cherish a peculiar belief that centres around the god Bhairon. In the main temple, in a niche in one of the walls, an earthen lamp containing milk and ghee is lighted every night. The smoke causes a substance like black ochre to collect in the niche. According to them if a mixture of this ochre and ghee from the lamp is painted on the elongated stone representing Bhairon, a pilgrim is sure to arrive and

offer a goat or sheep for sacrifice either on the same day or within a week. Whenever as they say, they do not get meat for a sufficiently long time, they resort to this device.

The institution of Baki—a common sight inside the temple quadrangle in one corner—is that of a person sitting with half-closed eyes and shaking his body. The man is said to be possessed by the *devata* and is in a complete trance. His words are not usually understood by an outsider. He is the *baki* or seer. He is consulted whenever there is a theft in some-one's family or someone suffers from a prolonged disease, or on any other family trouble or quarrel. The local seer of Hanol belongs to a neighbouring village, Chatra, and is a Rajput by caste. Very often pilgrims move to his residence if he is not available in the temple. The *baki's* fee varies from sixty-two paise to one rupee and twenty-five paise and sometimes even more. After offering the fee, the pilgrim sits quietly among others sitting or standing nearby. The *baki* folds his hands, closes his eyes and in a moment starts shaking his body, jerking it violently. His eyes become red and the voice hoarse, which is an indication that the *devata* has possessed him. And then he says to the questioner, 'I know why you are here. Perhaps you want to put this question. He then starts answering the question, or if it be some malady, he begins suggesting prescriptions and remedies. It is remarkable how the *baki* is sometimes able to anticipate the question or prescribes for maladies without even being told about them beforehand. A *baki* is always from the Rajput or Brahmana caste, never from the Bajgis or Koltas. No one thinks of becoming a *baki*, unless through intuition, dream or vision, he is assured of the *devata's* favour. Once he becomes sure of it, he starts persuading the *devata* through feasts and sacrifices until one day he finds that his tongue is opened (*jibh khul gae*). Henceforth he is regarded as a seer or diviner.

Of all the spirits of the unknown and intangible world the *bhut* and the *harh* are the commonest and the most mischievous. *Bhut* is dark in complexion with long hair and two front teeth interlocked, one going up and the other coming down. People dying of sudden death are believed to pass on into *pret yoni* (sphere of similar spirits) in popular Hinduism and a similar belief exists among the inhabitants of Jaunsar Bawar. Such individuals neither go to Hell nor to Heaven, but to the spirit world and become *bhut* if male and *harh* or *churel* if female. The natural environs suggest and encourage such beliefs among the simple folk. High hills covered with dense jungles standing in eerie silence throughout the Himalayan backdrop, dark and stormy nights and continuously roaring falls constantly reinforce such primitive beliefs. Worship of trees and animals is not so extensive and common but the peepul is held to be sacred, for the first head-shaving ceremony is performed under its shade. Whenever a cow gives birth to a calf no member of the family is allowed to drink milk until a little of it has been poured on the roots of the peepul or *bikhal* tree. Like the Hindus in general the Jaunsaris also consider the cow as sacred and abstain from killing it.

Among the Jaunsaris it is a bad omen to meet a person with an empty pot (*ghilati*) while one is on his way home, or leaving on some errand or work. It is an indication of obstruction in the successful accomplishment of the work. Similarly, the face of a barren woman is highly



**Details of carying on a wooden pillar in the enclosure of Mahasu Temple,
Hanol, Dehra Dun**

inauspicious and should be avoided on all important occasions. The carcass of a cow should not be looked at, and nobody in the village will take meals until it has been removed. The same holds true of a human dead body. Until the corpse has been taken away beyond the village boundary for burial or cremation, no villager eats.

Of Muslims—The Muslims of the district believe, as do their co-religionists elsewhere, that there is one God and that Muhammad is his prophet. Islam enjoins five duties upon its followers: the recitation of *kalma* (an expression of faith in God and in Muhammad), offering of *namaz* (prayers) five times a day (individually or collectively) preferably in a mosque, *roza* (fasting in the month of Ramadan), *hajj* to Mecca and *zakat* (contribution in cash or kind for charitable purposes). Many Muslims in the district have faith in a number of *pirs* (saints).

Of Jains—The Jains are followers of the path of liberation shown to the world by the Jinas (the conquerors and annihilators of the Karmic forces). The *triratna* (three gems)—right faith, right knowledge and right conduct—constitute the path of *moksha* (liberation). According to Jainism the universe has had no beginning and will have no end and no creator is necessary to explain the existence of the cosmos. They believe in *ahimsa* and worship in their temples in the presence of the images of their *tirthankaras* or Jinas.

Of Sikhs—Sikhism is a monotheistic religion, disavowing idolatry and making no distinction of caste among its followers. It prescribes the wearing by each adherent of a comb, an iron bangle, a dagger and a pair of short drawers and prohibits the cutting of the hair of the body. The Sikhs attend congregational prayers in their *gurdwaras* (place of Sikh worship) and celebrate the birth anniversaries of *gurus* when their holy book, the *Granth*, is taken out in procession. Most of the Sikhs of the district are the followers of Guru Ram Rai, the famous Udasi fakir who had settled down at Dehra at the close of the seventeenth century. The followers of Guru Gobind Singh do not believe in anything except Guru Granth Sahib, which is the main object of their worship, and which is regarded by them as their Guru. While Ram Raiyas (the followers of Guru Ram Rai) believe in the *samadh* of Guru Ram Rai and worship all the other objects of worship of Sanatanist Hindus, the followers of Guru Gobind Singh at the time of their baptism take the Amrit of *Khanda* (while reciting the verses of Granth Sahib, water mixed with sugar put in an iron vessel is stirred with a double-edged knife). The followers of Guru Ram Rai take *Charan-Amrit* (water touched with the toe of the Guru, the representative of Guru Ram Rai, the Mahant) at the time of their becoming Ram Raiya Sikhs.

Of Christians—The Christians believe in one God, his only son Jesus Christ (the saviour of mankind), the Holy Spirit, the resurrection of the dead and in everlasting life. The *Bible* is their holy book.

The Dehra Mission, a branch of the American Presbyterian Mission, Ludhiana, was established in 1858. Woodside, a famous missionary, commenced the work with the assistance of Gilbert Mac Master, then the only Indian Christian in the Dun. Evangelistic work has been carried on since the inception of the Mission in the city and suburbs of Dehra.

In 1884, when the American Reformed Presbyterian Church was amalgamated with the American Presbyterian Mission, some of the adherents of the former joined the latter. A remnant however, remained aloof and was able in time to acquire a piece of land on which it constructed a church, a school and a pastor's house. Preaching and evangelistic work is at present in the hands of the pastor.

The Methodist Episcopal Church was established in Mussoorie in the early eighties of the nineteenth century for doing evangelical work. Rajpur is now, however, the scene of some evangelistic work.

Festivals and Fairs

Hindu—The Hindu population of the district celebrates almost all the principal Hindu festivals the most important being briefly described below.

Ram Navami falls on the ninth day of the bright half of Chaitra to celebrate the birthday of Rama. Fast is observed throughout the day and the temples of Rama are especially decorated and illuminated. The *Ramayana* is recited in them and in the homes of devout Hindus, where large numbers gather to listen.

Nag Panchami is celebrated (as elsewhere) on the fifth day of the bright half of Sravana to appease the Nagas or serpent gods. Figures of snakes are drawn in flour on wooden planks and are worshipped by offering milk, flowers and rice.

Raksha Bandhan is traditionally associated with the Brahmanas and falls on the last (full moon) day of Sravana. On this occasion a sister ties a *raksha sutra* (thread of protection) commonly known as *rakhi*—around the right wrist of a brother in token of the protection she expects to receive from him.

Janmashtami, the festival to commemorate the birth of Krishna, is celebrated as in other parts of the State. Devotees fast the whole day, breaking their fast only at midnight when worshippers throng the temples and foregather to have a *jhanki* (glimpse) of the shrines and cradles especially installed, decorated and illuminated in homes and other places to commemorate the deity's birth.

Dasahra commemorates the victory of Rama over Ravana. Ram-lila celebrations are held at different places in the district.

Dipawali (or Divali) is celebrated by illuminating houses with oil lamps and kindled pine wood. The Makar Sankranti (January 14) is an occasion of universal bathing in the rivers, particularly at the holy confluences.

Basant Panchami is associated with the worship of Siva or Kedar, the presiding deity of Kedarkhand. A big fair known as Maru Sidh attended by about 80,000 persons takes place at Ambiwala.

Sivaratri is celebrated by keeping fast and worshipping Siva. The Sivaratri fair, attended by some 30,000 persons, is held at Beerpur Khurd, Bapugram and Lachhiwala.

The main fairs and festivals of Jaunsar Bawar are described below:

Magh festival is the biggest festival of the winter season. It starts in the middle of January and goes on till the end of February. According to the Hindu calendar the celebration begins on the 28th day of Pausa when pigs or goats are slaughtered in well-to-do houses. In the local language this day is known as *maroj*. During this period singing and dancing is arranged for every night turn by turn in every house. Not only the villagers but other relatives, too, are invited for the night and given a feast of boiled rice, *poori*, meat, and liquor. In the dancing sessions the womenfolk are only passive spectators. They sit apart and watch the performance, which is a sort of solo dance. A few persons go on singing a folk-song to the tune of which one person at a time dances in the centre of the room. The songs pertain to old glorious events, gods and goddesses and other similar subjects.

The Magh festival is followed by the Bissu *mela*. In fact the word Bissu is a spoilt form of the word Vaishakhi. The festival starts on the first day of Vaisakha (April). Close relatives sometimes arrive on this occasion. The Bajgis play on various musical instruments such as *dhols*, *damana*, *karnai*, *ransingha*, *bayain*, *dhak*, *shahnai*, etc. The men form a separate line and the women are arranged in another row. Both the parties sing turn by turn. The woman dancers are dressed very colourfully and are loaded with ornaments. They clasp each other's waist and go on moving round in a circle in a rhythmic manner. The male dancers sometimes depict a mock-fight locally known as *thorua*. They go on waving their swords or sticks.

Jagra festival is connected with the worship of Mahasu *devata*. It is held towards the end of August. In village Chapnu there is no temple dedicated to Mahasu and hence on this occasion (Jagra festival) the residents of this village go to village Thaina of Panjgaon *khat* for paying their homage to the *devata*. A fast is kept on the previous day and everyone keeps awake throughout the night. In village Thaina the priest hands over the idol of Mahasu from the temple to the eager crowd which assembles near the temple. The idol is bathed in the river and handed back to the priest in the temple. The Bajgi women dance in front of the temple on this occasion.

The Panchon festival coincides with the Dasahra festival in the plains. Fairs are held at various places on the Dasahra day, the most famous fair being the one held at Utpalta where people of surrounding villages first stage a mock-fight to the beating of drums by Bajgis, and then greet each other affectionately. All of them assemble in the temple courtyard and sing and dance to the accompaniment of local music. In village Chapnu, a twenty-four hour fast is observed on this occasion. Goats are slaughtered and special food prepared. They eat, drink and dance on this occasion. Some people go to the fair at Utpalta.

In Jaunsar Bawar the festival of Divali is observed about a month after the festival of Divali in the plains. The married women return to their *mait* (father's house) on this occasion. On the day of Bari Divali, which is locally called Huliati, wood is collected in one big heap at one place in the village and set a fire early in the morning. The menfolk pull out pieces of burning wood from the heap and go about in the village brandishing these sticks. The womenfolk also join them. During the day dancing takes place. The womenfolk stage the dance, locally known as Rasha, in which two women take part at a time.

In importance Mond is considered a major festival of Jaunsar Bawar. While Bissu is an important spring festival, Mond is a bigger one still, organised on a large scale, crossing the *khat* boundaries, unlike Bissu which is only an intra *khat* festival. At all places, Mond attracts people even from outside Jaunsar Bawar. The Mond at Dunghiara (situated at a distance of about five kilometres south-east of Chakrata on the Lakhamandal road) is said to attract the largest number of participants.

An annual festival in honour of Shilguru, the god of sheep, is held in month the of Sravana (August). This festival is generally known as Nunai, suchas is held at Baila and Jadi. At Lohari, the festival is known as Shemiati, and it is held on the first day of Sravana, usually just a few days before the Nunai is held in Jadi. This festival has not only economic importance in connection with the shearing of sheep, but also has a great significance from both social and religious points of view. Sacrifice of a ram is offered to Shilguru by each family in the morning and dancing and singing continue throughout the day and night.

A list of some of the important fairs appears at the end of the chapter in Statement II.

Sikh—The largest of all is the Jhanda mela held in front of the temple of Guru Ram Rai at Dehra in Chaitra. The fair derives its name from the huge new flag which is annually hoisted. It is attended by about 1,00,000 persons, of whom many are Punjabi Sikhs.

Jain—The Jains of the district celebrate the birth and nirvana anniversaries of Mahavira, their twenty-fourth *tirthankara*.

Christian—The important festivals of the Christians of the district are Christmas which falls on December 25 and celebrates the birth of Jesus Christ; Good Friday, which commemorates his crucifixion; and Easter which celebrates his resurrection.

Muslim—A brief account of the most important festivals observed by the Muslims of the district (the occurrence of which corresponds with particular dates in the Islamic calendar) is given below. Barawafat, the birthday of the prophet Muhammed, is celebrated on the twelfth day of Rabi-al-awwal when alms are distributed and Muslims gather to listen to discourses (Maulud Sharif) on the prophet's life. Shab-e-Barat is celebrated on the night of the fourteenth day of Shaban when prayers (*fateha*) are offered for the peace of the souls of deceased kin and are usually recited or read over sweets and bread which are then distributed.

Id-ul-Fitr falls on the first of the month of Shawal when thanksgiving prayers are offered by Muslim men in mosques for the successful completion of the fasts of the previous month of Ramadan.

Id-uz-Zuha (or Bakrid) falls on the tenth day of Zilhijja to commemorate the occasion when prophet Ibrahim submitted himself to the will of God. Men attend morning prayers in mosques and sheep and goats are sacrificed in God's name.

Giarhween Sharif is a festival of social importance for the Sunnis of the district and is observed on the eleventh day of the month of Rabi-us-sani in honour of Abdul Qadir Jilani, an early Muslim saint of Baghdad, who was acclaimed as a descendant of the prophet Muhammad. Prayers, sweets and flowers are offered in his memory on this occasion.

Muharram is an occasion for mourning rather than a festival as the first ten days of the month of that name commemorate the tragedy of Karbala, which witnessed the martyrdom of Imam Husain, the grandson of the prophet Muhammad, and his companions. Although this occasion has a special significance for the Shias, the Sunnis also take part in some of the observances. The *imambaras* (building for performance of religious ceremonies, etc., in memory of Imam Husain and Hasan and their followers) are illuminated on the eighth and ninth of the month. *Majlises* are held from the first to the ninth and *tazias* (replicas of the tombs of Imam Husain and Hasan) are taken out in procession separately by Shias and Sunnis on Ashra (tenth day).

SOCIAL LIFE

Property and Inheritance

The laws governing succession and inheritance to property in this district are the same as elsewhere in the State, the Hindu Succession Act, 1956, being applicable to the Hindus (including Sikhs and Jains). Succession and inheritance among the Muslims are governed by their personal law and among the Christians by the Indian Succession Act, 1925. In practice, however, certain local customs, traditions and usages, which are not in keeping with the provisions of the Hindu Succession Act are followed in Jaunsar Bawar, where there are traditional codes to regulate the shares of inheritance, and the division of family property is usually a concern of the *khumri* (village meeting). The father, the eldest brother, or both the eldest and the youngest brothers, as the case may be, may be given the first choice of their shares. A woman is not entitled to any share, but a *dhyanti* (husband's sister) has always the right to be looked after by her father or brothers, whenever she may like to come and stay at home. A *ryanti* (wife in the family) on the other hand, has her choice to stay with her husband or with her own sons. A mother may choose to stay with one of her sons, but her maintenance will be met by all sons born to her. On the occasion of the division of a family, it is not necessary for all the heirs to separate from one another simultaneously. Often one or two of the brothers, with special attachment to one of their wives, may choose to establish a new household, while the rest stay back together until a further division of family takes place.

Normally the eldest brother of a family in Jaunsar Bawar inherits double the share and the youngest brother one and a half times the share received by each of the other brothers. For example if the family property is to be divided between four brothers A, B, C and D. A being the eldest and D being the youngest—the property would be divided into five and a half shares. A will get two shares, D will get one and a half share and B and C will get one share each. The eldest brother is allowed first preference over the fields, cattle, the domestic articles, the common wife and the children born of her. She can go with one of the younger brothers only with his permission. If she is bent upon going with one of the younger brothers in spite of the prohibition of the eldest brother, there is no alternative but to dissolve the marriage. She is then at liberty to marry the younger brother. If she falls in the share of the eldest brother, the other brothers are not denied access to her even after partition.

In the urban areas of this district, as in other parts of the State, the institution of the joint family, which has been a feature of Hindu society since ancient times, is breaking down as the twentieth century advances owing to economic and social factors, the impact of modern ideas and the individualistic outlook of the younger generation.

However, the joint family system continues to be the popular pattern of family life in the Jaunsar Bawar area of the district. The common wife is one of the uniting forces of the family. It is the eldest brother who gets married to a woman; other brothers automatically become the husbands of this woman. The eldest brother is *karta* (head) of the household. He manages the affairs of the family both within and outside the village. Indeed in many remote villages most of the old customs and taboos have remained unchanged in spite of social legislation of the fifties. The pace of change in Jaunsar Bawar is in fact hardly perceptible.

Marriage and Morals

Of Hindus—Among the Hindus of the district, as elsewhere in the State, marriage is a sacrament, its rites being prescribed in the scriptures and to some extent by custom and tradition. A few variations may occur in the performance of the different rites from caste to caste or even from family to family within a caste.

Notwithstanding the provisions of the Hindu Marriage Act, 1955, prescribing the minimum age for marriage as 18 for the bridegroom and 15 for the bride, increased to 21 and 18 while going to press, prohibition of polygamy and polyandry, and permitting intercaste marriages and even those between persons of the same *gotra* (eponymous group descended from a common ancestor in the male line of descent), early marriage, polygamy and polyandry have persisted among the people of Jaunsar Bawar whose own ancient social customs have undergone little change mainly because the population of this area has come in much less active contact with people residing outside.

In the matter of marriage the initiative is taken here by the father of the boy. A close relative acts as the mediator; he contacts the parents

of a suitable girl and if they agree he informs the boy's parents. Thereafter the boy's father goes to the house of the bride and formally puts forth the proposal of marriage. If the proposal is acceptable to the bride's people, a pundit is consulted for finding out if the *rashi* and *varg* of the bride and the groom to be agree. If so, the groom's father gives one rupee to the bride's father as price for the bride known as *bandho* or *jeodhan*. If one can afford it, a wrist or neck ornament is also presented to the bride. After this ceremony neither the groom nor the girl can marry anyone else.

Some days later, the groom's father consults the pundit again to find out an auspicious day for the marriage ceremony. This date and time is then communicated by letter to the bride's people and if they agree, preparations for the marriage ceremony start. A day or two before the actual marriage ceremony some persons (numbering from two to ten) reach the bride's house. In the evening a grand feast is given in which the friends and relatives of the bride's people also participate. Goats are slaughtered and their meat cooked; drinking is also indulged in. Next morning the bride is made to wear the clothes and ornaments brought by the groom's people. The ornament that she is made to wear in her nose or ear at the auspicious time indicated by the pundit is known as *suhag*. She does not take it off as long as her husband is alive.

The characteristic feature of marriage in this area is that the bride goes in procession to the groom's house on the day of marriage along with her relatives. She starts in the morning and reaches the groom's house generally by afternoon. If her village is situated at a distance, she might halt for the night in some village on the way. Members of the marriage party are known as *jojoria*. The marriage party is led by a few Bajgis who go on playing on drums and other musical instruments. They would be singing and dancing throughout on the way. The party might consist of 25 to 30 persons. The bride's procession is received by the groom's people. The feet of the guests are washed with warm water. The bride's party stays in a separate house.

The marriage ceremony is a simple affair. There is no circumambulation around the fire. The bride is welcomed by her mother-in-law with *dhoop*. The hems of the clothing of the bride and the groom are tied together and they are made to sit side by side.

The *purot* (the Brahmana priest) applies a *tilak* (the vermilion mark) on the forehead of the bride and the bridegroom, and recites some *mantras* (hymns) in the local dialect. The groom's mother also applies a *tilak* on the forehead of the bride. The husband offers a loaf of bread to the bride and *vice versa*. The *tilak* is also applied to the forehead of a he-goat, which is then slaughtered. The marriage ceremony is now complete.

A grand feast is usually organised many more goats are slaughtered and mutton cooked. Other articles in the menu are usually *poori*, *halwa*, vegetables, rice *kheer* and fish etc. A great quantity of ghee is consumed in the feast. Everyone drinks to one's heart's content. After the feast, drinking and dancing goes on throughout the night. It is locally known

as the *Bhairashakha* dance. Tea and meals are again served next morning. A few outdoor dances are then organised. By midday, the *jojorias* depart for their village, leaving behind the bride at her husband's house.

The girl's father also sends a few utensils of domestic use and one or more cows and goats with the bride by way of dowry, which is locally known as *paintu*.

Such a marriage is called the *Bajdia* marriage, because the bride's party is led by *bajas* i. e., drums and other musical instruments. It is usually performed when the groom and the bride are being married for the first time.

The second type of marriage is called the *Boidodi*. It differs from the *Bajdia* form in so far as drummers and musicians do not accompany it, the number of members in the bride's party is smaller and the amount of dowry is less than in a *Bajdia* marriage.

The third form of marriage is known as *Bewa* marriage, when either the bride or the groom or both are being married for the second or subsequent time. It is a much simpler affair. Only two to four persons accompany the bride as members of the marriage party, and the *bajgis* (drummers) do not accompany the bride. Also there is no dancing and singing in the night. A *thali* and *katora* only are given in dowry. The expenditure incurred over this marriage is nominal.

Polyandry—The principal features of the system prevailing in Jaunsar Bawar appear to be as follows. The husbands must all be sons of the same mother or by the same set of husbands. When the eldest brother is at home he shares a bed with the wife, and the younger brothers cannot have sex relations with the common wife when the eldest brother is at home. But since he has to go out often in connection with the affairs of the household, the other brothers get adequate opportunity to have access to the common wife. Sometimes they seek an opportunity in the fields or at some other place outside the house. Each of the brothers is known as her *khawind* (husband). Similarly her children would call her husbands *baba*. Thus a child may have three *babas* and so on. In the school or at other places the name of the eldest brother is mentioned as father of the child.

A brother may take a separate wife and, in such a case, may continue to possess the common wife as well, if the other brothers do not object or, he may separate and obtain his share of the family property, but if children have been born, his share is reduced. It sometimes happens that a household has several wives in common. One case was reported in which the family consisted of eight brothers, six being sons of one mother, and two of another. The family first married three wives who were possessed in common, but subsequently one of them took another wife. Later the six full brothers appropriated the first three wives and the other two sons the new wife. There is no prohibition on the marriage at the same time of two sisters, though this is rare, and a specific reason was given in one case, viz., that the first wife bore only daughters,

The relations between the co-wives are also cordial. They share the bed with the other brothers according to available opportunities. An equal number of clothes and ornaments is given to the co-wives. They call each other *dadi* (sister). In order to avoid quarrels between co-wives a certain ceremony is observed when the newly-wedded wife comes into the house. The new wife is made to sit in a corner of the room and the old one sits opposite her. Two elderly women stand by each holding a lighted stick in their hands. The light is held in such a manner that the shadow of one wife does not fall on the other. A third woman joins their hands and each gives the other a silver coin. If there be more than one wife in the house, this ceremony is repeated with each one of them.

Polyandry is attributed mainly to the following reasons. The residents of Jaunsar Bawar claim to be descendants of the Pandavas who followed the polyandrous form of marriage in so far as Draupadi was the common wife of the five brothers. Following the example of the Pandavas they too have adopted the polyandrous form of marriage.

Another reason is apparently the geo-economic condition of the area. Cultivable land is limited and nature is not bountiful. A lot of human labour has to be put into the land to extract whatever little production is forthcoming. Hence a joint family is perhaps the only solution. If all the brothers marry separately, there would be a number of children of the various couples, ultimately leading to family feuds and dissensions and fragmentation of the family holdings and property. Consequently, the standard of living would further go down. In a polyandrous society all the brothers are centred round one or two wives. Normally they would not think of partition. The common wife thus serves as a uniting force in the family.

Lack of education is another reason for the continuation of this system. Those who have received higher education have tended to revolt against the old custom of having a wife in common.

Polyandry is usually said to be the effect of excess of males over females, and this certainly has been one of the major contributory causes in Jaunsar Bawar; but polyandry here resembles the patriarchal system of Tibet and not the matriarchal system of the Nairs of South India.

Of Muslims—Islam permits polygamy, a man being allowed to have up to four wives at the same time. With the Muslims, marriage is a contract and every Muslim of sound mind who has attained puberty may enter into such a contract but the marriage of such a Muslim is void if it has been brought about without his consent. The amount of dower (*mahr*) may be fixed before, at the time of, or after the marriage. The essentials of a Muslim marriage are that there should be a proposal by or on behalf of one of the parties and the acceptance by or on behalf of the other in the presence of and within the hearing of two men or a man and two women witnesses who must be adult Muslims of sound mind (but according to the Shia law the presence of witnesses is not

necessary in any matter regarding marriage). Both the proposal and acceptance must be expressed at one meeting. The custom that prevails in the district is that after the settlement of the marriage, the *sagai* or *mangni* (asking for the bride) takes place. The marriage ceremony (*nikah*) is performed by the *qazi* in the presence of witnesses. On the date fixed, the bridegroom and his party (*barat*) go to the house of the bride and her *vakil* (who is usually an elderly relative), in the presence of two witnesses, obtains the consent of the bridegroom to contracting the marriage and informs the parents or guardians of both the parties accordingly. The *qazi* then reads the *khutbah* and the marriage ceremony is over. Among the Shias one *maulavi* from each side participates in performing the marriage instead of the *qazi*. Generally the *rukhsati* (leave-taking) takes place immediately after the marriage and the bride accompanies the bridegroom to his place. The guardian of a minor can enter into a marriage contract on behalf of the ward.

Of Christians—According to the Indian Christian Marriage Act, 1872, as amended by Act of 1952, the minimum marital age of the bridegroom is 18 and that of the bride 15 years but if the latter is below 18, the consent of the guardian is required. The marriage customs of the adherents of different denominations in the district usually follow the same general pattern. The marriage may be contracted by the parties concerned or may be arranged by their relatives. The period of engagement, which precedes the marriage, may be long or short. The banns are published three times (once every week) by the priest of the church where the marriage is to be solemnised, to give an opportunity for objections. On the fixed date the bride and the bridegroom are married in church, the ceremony being performed by the priest. The essential parts of the ceremony are the giving away of the bride by the father (or other relative or friend), the repeating aloud, after the priest, of the marriage vows by the bride and the bridegroom, the placing of the ring by the bridegroom on the third finger of the bride's left hand (sometimes the bride and the bridegroom exchange rings), the pronouncement of the couple as husband and wife by the priest and the signing of the marriage register by the couple and their witnesses. Wedding festivities then usually follow at the bride's home.

Dowry—The giving and accepting of dowry has now been made illegal by the Dowry Prohibition Act, 1961, but the practice has not yet been altogether abolished here as elsewhere. Parents give dowry in the form of clothes, ornaments, household effects, etc., at the time of their daughter's marriage, but they generally do so of their free will and in accordance with their status and financial condition. The Khasas and Doms, on the other hand, charge money as bride's price from the bridegroom himself.

Civil Marriage—The Special Marriage Act, 1954 (No. 43 of 1954), provides for the performance and registration of marriages by a marriage officer appointed by government in the district for this purpose. Caste or religion are no bar to such marriage, nor are any rites or ceremonies necessary.

Widow Marriage—In spite of the Hindu Widow's Remarriage Act, 1856, which declares widow marriage among Hindus legal, remarriage

of a widow or divorcee is still unpopular, as a wife is generally held inseparable from her husband throughout her life. But the case is totally different in Jaunsar Bawar, even among the high castes such as Brahmanas and Rajputs (Khasas). Women, as well as men, are free to divorce their spouses and they can remarry without much difficulty. A woman can change several husbands without losing prestige. All that she has to do is to get a man who is willing to marry her by giving her first husband a compensation known as *chhoot* money, or *kheet*.

Divorce—The dissolution of marriage either by law or by custom was not permissible among the Hindus except among the Scheduled Castes where it was allowed with the sanction of the panchayat of the caste concerned. The Hindu Marriage Act, 1955, provides for divorce under certain circumstances and conditions. Muslim law permits the husband to divorce the wife on his making payment of the *mahr*, (stipulated amount decided upon at time of marriage), should he decide to seek a divorce. The Dissolution of Muslim Marriages Act, 1939, also gives the wife, under certain conditions, the right to divorce.

The number of cases referred to court under the Hindu Marriage Act, 1955, and the number of divorcees allowed from 1966 to 1970 are given below :

Year	Total no. of cases filed	No. of cases filed		No. of divorce allowed
		By men	By women	
1966	28	9	19	15
1967	52	9	43	21
1968	57	22	35	17
1969	70	30	40	29
1970	68	26	37	30

The system of divorce is prevalent in the entire pargana of Jaunsar Bawar, where the husband and the wife have equal rights to divorce each other. When a woman wants to divorce her husband, she goes to her *maiti* (father's house) and refuses to return to her husband's village. When several requests from her husband's people for her return have been refused, it is supposed that the girl will not come back. In the meantime some prospective husband may come to the woman's father and the latter goes to her first husband's house to negotiate the divorce. Her husband or father-in-law will tell his terms (*kheet* or *chhoot*, a compensation payable for divorce) which usually amounts to anything up to 1,500 rupees. If the prospective husband is willing to pay the amount the divorce is settled. Thereupon, the woman is free to take a second husband and all relations with the family of her previous husband are severed. A case of divorce may not need any serious or bitter relationship as its ground. A girl who is tired of the onerous burden of the family, or is not satisfied with the ornaments she demanded, may leave

her husband. Instances have also been found in which a beautiful woman when ill-treated by her mother-in-law has sought divorce from her husband. Some villagers of Baila (in pargana Jaunsar Bawar) had wives from Sirmur (in Himachal Pradesh), who refused to come back to Baila on account of the difficult conditions of communication and some differences in the dialect. The main factor which tends to encourage divorce is the fact that people do not mind marrying a divorcee who may be notorious for her laxity, but is otherwise a help in his domestic work and bears him children. A woman credited with a large number of divorces may even fetch more *chhoot* money, especially if she has proved her fecundity. In fact, people are in general anxious to get children to add to the strength of labour in the family. Widows are rarely found in polyandrous society, as a woman has more than one husband. If per chance there is a widow who can still bear children, she may easily remarry and there is no stigma attached to such a marriage.

According to the enumeration of 1961, there were 2,42,987 males and 1,86,027 females in the population of the district. Their distribution among the unmarried, married, widowed, and divorced or separated, with reference to different age-groups, is given in the following statement :

Age group	Unmarried		Married	
	Male	Female	Male	Female
1	2	3	4	5
0—9	58,695	55,685	—	—
10—14	25,287	19,365	1,427	2,351
15—19	19,419	7,696	4,807	9,200
20—24	12,466	2,101	10,960	14,981
25—29	4,883	882	15,613	15,734
30—34	1,798	183	15,594	12,762
35—39	1,126	85	14,505	9,601
40—44	801	62	11,976	7,769
45—49	674	40	9,485	5,152
50—54	488	49	8,271	4,020
55—59	288	20	4,814	1,898
60—64	243	32	4,414	1,628
65—69	111	18	1,802	504
70+	305	43	2,464	491
Age not stated	24	20	3	18
Total	1,26,058	85,781	1,05,635	86,109

[Continued]

Age-group	Widowed		Divorced or Separated		Unspecified	
	Male	Female	Male	Female	Male	Female
1	6	7	8	9	10	11
0—9	—	—	—	—	—	—
10—14	10	16	2	15	76	44
15—19	23	31	30	24	20	16
25—29	144	196	79	67	12	23
30—34	318	251	90	52	5	10
35—39	460	495	130	60	7	10
40—44	600	669	105	30	3	5
45—49	838	1,087	75	31	1	3
50—54	959	1,275	63	29	—	8
55—59	1,526	2,004	65	24	2	5
60—64	1,075	1,369	33	10	1	2
65—59	1,546	2,267	43	8	4	4
	910	1,177	9	5	—	2
70 ×	1,979	2,798	42	2	—	3
Age not stated	3	—	...	—	6	1
	10,391	13,635	766	366	137	186

Prostitution and Traffic in Women—The enforcement of the Suppression of Immoral Traffic in Women and Girls Act, 1956 (Act No. 104 of 1956) in the district with effect from May 1, 1958 placed a ban on prostitution. Prior to the Act there were 300 prostitutes in the district of whom 100 were rehabilitated by way of marriage, 50 entered into various services, and 100 were restored to their guardians, 50 were provided education and training. These women and girls mostly belonged to the districts of Uttarkashi, Tehri Garhwal, and Jaunsar Bawar area of Dehra Dun. There were at that time three organised brothel areas in Dehra Dun city which were closed down under the said Act.

The Harijan and social welfare department, U.P., has established a rescue organisation at Rajpur (Dehra Dun) under the charge of a rescue officer. Under the jurisdiction of this organisation there are 28 districts in the western part of the State. This is a field organisation which keeps active liaison with the police and district administration, so that women and girls found in moral danger may be saved from the traffic in human flesh through application of the provisions of the Act.

The rescued women and girls are escorted by the rescue officer to the State Rescue Home, at Rajpur, Dehra Dun. The main object of the rescue home is to impart to these inmates craft-centred education and to protect them from immoral life and elevate their morals by inculcating in them a sense of self-respect and self-reliance for settling them in honourable professional and even conjugal life. In 1965 the number of such girls and women in the Rescue Home, Rajpur was 49. There have been only two prosecutions under this Act, both ending in conviction.

Gambling—The Public Gambling Act, 1867, as applicable to the State under the U.P. Public Gambling Acts of 1952 and 1962, is in force in the district.

The number of prosecutions and convictions secured under the Act during 1966-70 were as under :

1966		1967		1968		1969		1970	
No. of Prosecution	No. of Conviction	No. of prosecution	No. of conviction	No. of prosecution	No. of conviction	No. of prosecution	No. of conviction	No. of prosecution	No. of conviction
1	2	3	4	5	6	7	8	9	10
108	48	98	41	81	36	52	32	47	29

Home Life

According to the census of 1971 there are 88,412 occupied houses in the district, of which 47,530 are in rural areas and 40,882 in the urban areas, giving an average of about 6 persons per house in the rural and about 7 persons per house in the urban areas.

There are 1,05,365 households* in the district, of which 56,406 are in the rural and 48,905 in the urban areas. The average size of a household in the rural and urban areas is 5.

Houses

G.R.C. Williams writes in 1874 : "The great number of masonry houses in the occupation of well-to-do natives is remarkable, because only forty-five years ago there were not more than eight or nine such commodious residences (exclusive of European houses) in the whole district : three at Dehra, one at Rajpur and three or four at Rishikesh." Masonry houses are now common in the towns, in all the old-established villages particularly round Rajpur and between Rajpur and Dehra, and also in the villages near the cantonments which have become the homes of pensioned Gurkhas. In the hill villages of the Dehra tahsil practically all the houses are of stone masonry. The houses of the poor

*As per census definition, a household is a group of persons who commonly live together and take their meals from a common kitchen

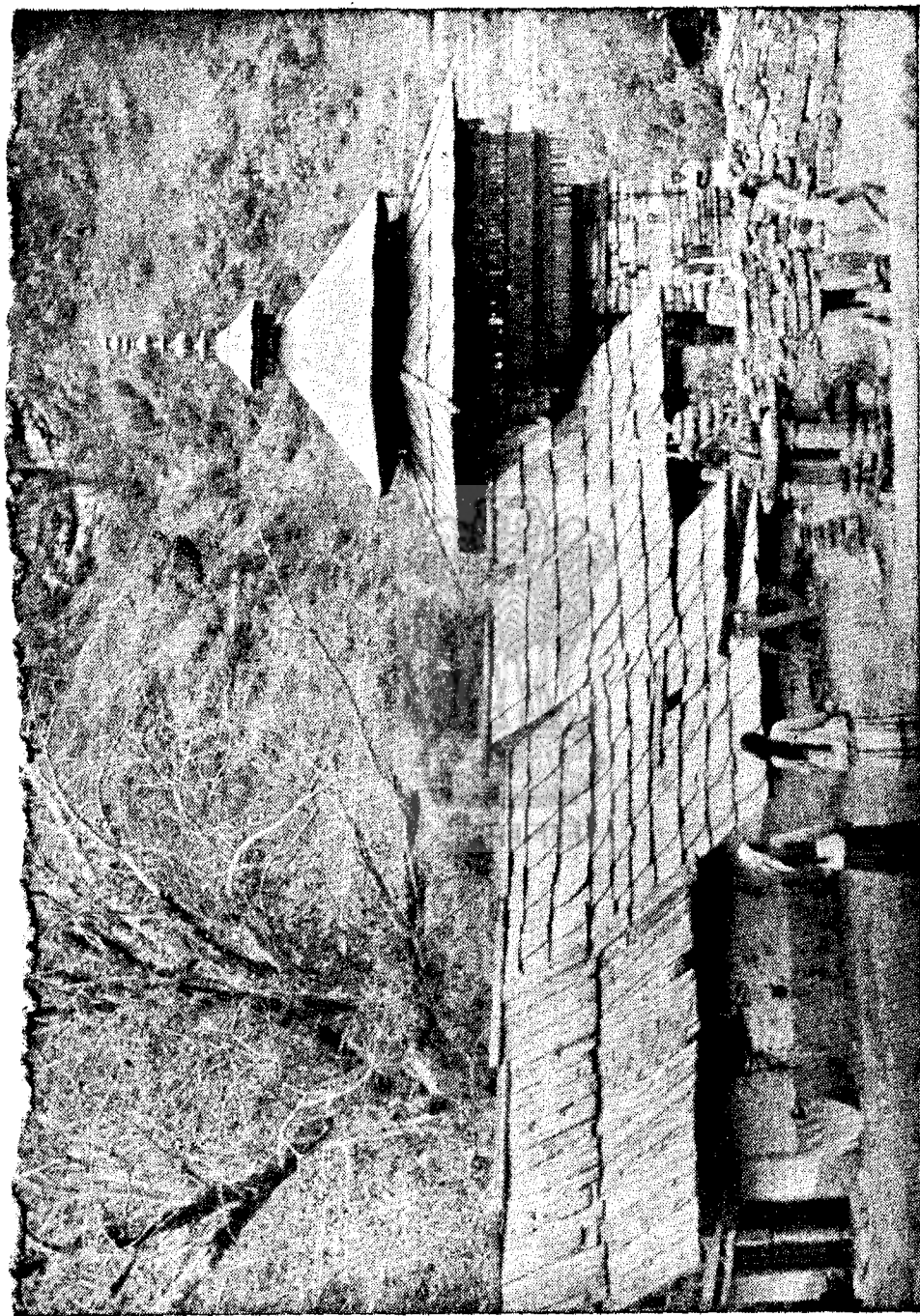
are of dry masonry and rough hewn stones or boulders fitted together. In the better class houses, the stones are joined with mortar, in the case of the well-to-do the walls are plastered and bricks are employed to frame the doors and windows. On the whole the Dun cultor is probably better housed than his brother below the Siwaliks.

The hillman of Jaunsar Bawar takes the greatest pride in his house. According to the almost universal custom of polyandry joint families are the rule, and large houses a necessity. The plainsman puts his savings in jewellery wherewith he adorns the persons of his womenfolk; the Jaunsari puts them into his house. Houses of more than one storey are usual, and they often rise to three and even four storeys. The various storeys and apartments are described below.

Dobra or *Dobri* is the underground apartment (basement) of the house and is used for storing grains, cereals and other valuable possessions like guns, cartridges and swords. It is made of stone slabs. The inner walls of a *dobri* are usually white-washed with clay lime. Above the basement (*dobra*) is *obra*, often referred to as *obru*. Its walls are made of stones while the roof is wooden. It is so because just above is the uppermost or next wooden storey on the top. The *obra* is hardly more than six feet high. Very often, but not necessarily, the people construct a gallery supported by carved wooden pillars around the *obra*. The breadth of this gallery is never more than three or four feet. *Obra* is utilised as a general store for keeping *giltas* and *topra* (kinds of basket), *pa* (fishing net), ropes, bags, *parat*, *bantas* (water vessels), other utensils and pots, boxes, and other articles not needed in day-to-day

A portion of the *obra*, called *kuthar*, is meant to keep such corn and provisions as are to be used currently. The rich have their *kuthar* separate from the main dwelling. When the *obra* is not used for storing grains and provisions, it is usual to keep goats and sheep there. A circular hole, usually one and a half feet in diameter on the roof of the *obra* in the corner just opposite the kitchen, serves as entrance to the top storey. It is through the *obra* and this hole, that the lower caste people, such as Badi, Bajgi and Nath, who are allowed to enter the house but not the kitchen, can go up. The next storey is called the *manjia* and is made partly of wood and partly of stone. It is not usual to have a *manjia* except when one has large property, and many members in the family. This portion of the house is also utilised for storing grains and keeping family property, but beddings and extra clothes are also kept there. *Buar* the well decorated top-most apartment (which serves as a best room) is made exclusively of deodar wood and is accessible through a wooden ladder from the attached *angan* (courtyard) of the house. With the square wooden structure the roof of a Jaunsari house is always two-tiered, made of wooden slippers which are shouldered on very long bars of pine wood and covered with slate slabs or deodar shingles.

The construction of houses naturally would cost much in money, labour and time in Jaunsar Bawar but the people co-operate with each other in bringing building materials without charge, but costly feasts have to be arranged for them instead, the cost varying from house to house, depending on its size and decorations.



View of Mahasu Temple with local people and their typical dwelling houses, Hanol, Dehra Dun

Food—Those who can afford it eat wheat and rice, but the staple food of the poorer classes is the coarser millets such as *mandua* and *jhangora*. The leaves of the *amaranth*, not the tops, the removal of which would interfere with the formation of the grains, are in the hilly portions of the district used like spinach and either eaten mixed with a little grain or, if times be very hard, alone. This article of food covers for the poor the rather distressful interval between the exhaustion of the *rabi* stores and the arrival of Kharif harvests. Wheat, maize and barley are also used for preparing chapatis. *Sattu* of maize is consumed with curd and salt.

Among pulses *tor* is commonly used by the better off, and *urd* by the poorer classes. Wild vegetables are consumed in the hills at a time of year when other food is scarce. Pumpkins are cut into chips which are dried in the sun and then ground into flour to be used as food.

The meat-eaters prefer the flesh of sheep and goat. The shikaris procure wild pigs, pheasants and other animals and birds and eat them. Fish is usually eaten by the inhabitants of the riparian villages. In the jungles trees such as medlars, figs, barberries and others are very common, but even in times of scarcity they are little used.

The oil used is, in the Dun as well as the hills, chiefly that expressed from *lahi* (rape), or *tils* (sesamum). In Magh, a sacred month, the eating in Jaunsar Bawar pargana degenerates into gluttony and the inhabitants of the colder villages feast for days on mutton and beer. In the rains the people make thick cakes (chapatis) of the roots of some tree and barley meal. These cakes are laid by until required. One is then broken up with some cooked *china* (millet) and *sawak* (coarse grain) and soaked in water for eight or nine days. They then strain off the liquid and drink it, and also eat the refuse. Tobacco smoking is common and tea drinking has greatly increased. The inhabitants of pargana Jaunsar Bawar are, in particular, fond of locally-prepared liquor which is prepared in two ways. First of all water is mixed with barley flour and certain powdered intoxicating roots. Then big cakes, each weighing about six chataks, are prepared and stored up in some place, generally an underground chamber. These cakes are just like the common *gurbheli* in the plains and are called *kheem* or *keem*. This operation is usually undertaken during the winter season. Whenever liquor is to be prepared, *mandua* or *jhangora* flour is mixed with water in a vessel and a few *keem* are dropped according to the quantity and strength of the drink desired. The vessel is then covered and stored away for about three days for fermentation. The contents are now heated on fire in a vessel and distilled. The distilled liquid is collected in bottles and is locally called *soor* or *daru*. While filling the bottles a small quantity of liquor is every now and then thrown into the fire to test strength and quality. So long as it catches fire at once, it is regarded as *phool* (superior), but as soon as it becomes slow to catch the fire, it is regarded as inferior.

The alternative method of preparing liquor consists of mixing a number of *keem* in flour of barley or *jhangora* with a large quantity of

water in it. The whole mixture is then stored away for a month or two. During this interval, fermentation takes place and beer is formed and is locally called *ghankati* or *pankhuri* and is stored in a big iron vessel having a capacity of over one and a half maunds. It is taken out in an earthen pot, called *gudki* and then served to people in shallow utensils.

Dress—There is nothing special to mention about the dress of the people residing in the urban areas of Dehra Dun district as a certain amount of uniform trend towards westernisation is visible throughout urban regions of northern India in the matter of dress.

In Jaunsar Bawar, the modes are different and often picturesque. The inhabitants are fond of good clothes and are indeed among the best-dressed people in the Himalayas. The dresses for festivals and for daily use also differ—the altitude of a village often counting for much. During summer men wear a loin cloth, a woollen or cotton cap and one or two shirts. The mill-made cotton is imported from the plains. It is purchased by the people from Sahiya, Kalsi or Chuharpur. During winter they use woollen pyjamas, locally called *jhangail* and a short woollen coat. If it is very cold a blanket may be needed. The woollen cloth and blankets used are generally manufactured in this area itself from home-spun wool. Country made shoes are also used by a few people. The women wear a *ghaghra*, a *kurti* and *dhantu*. The *ghaghra* is just like a voluminous petticoat extending up to the ankles. It is tied round the waist. The *kurti* resembles a tight-fitting short coat tied like the *angarkha*. Some women use the double-breasted *kurti*, to safeguard against the cold. The *dhantu*, which is used as headgear, is usually a square piece of coloured cloth, placed on the head and tied with a knot behind. Even young girls cover their heads with *dhantu*. In fact no women would be found with an uncovered head. They generally do not use the *sari*, obviously because it does not suit the climatic and geographical conditions of this area. Some womenfolk who belong to better off families use *ghaghra* and *kurti* of bright colours, with patterned borders of another colour, especially on the occasions of fairs and festival.

Jewellery—The males do not wear any ornaments at all but the Jaunsari females are loaded with jewellery. Men spend huge sums of money over the procurement of gold ornaments for their wives. The Brahmana and Khasa females wear a number of gold ornaments, but the poorer Kolta females can generally afford only silver ornaments. Some of the ornaments used by these women are *tilli* (a small nose-pin worn on the left portion of the nose), *laung* (a big nose pin), *bulak* (a pendant worn on the cartilage of the nose and hanging up to the chin), *nath* (a large nose ring, held up by chain or string attached to the headgear to relieve the strain on the nose), *jhumku* (a betel leaf-shaped ornament suspended from the ear lobe), *tungal* (set of silver rings worn round the outer edge of the ear), *kanthi* (a garland of silver rupees with *ghungroo*), *har* (a necklace having a number of chains), *guluband* (a type of silver collar worn around the neck), *sooch* (an ordinary garland), *khagli* (a necklace of round silver bar), *kantha* (a *khagli* with pendant in the centre), *utreyan* (head chain), *choori* (silver bangles), *karey* (bracelets of solid silver), *anguthi* (ring worn on fingers) and *pauli* (ring worn in the digits of feet).

The number of ornaments worn by the womenfolk depends upon the financial condition of their husbands. A number of holes are pierced in the ears of every woman.

Communal Life

Amusements and Recreations—The cinema is a popular means of entertainment with the people of the district. There are 9 picture houses in Dehra city, one each in the cantonment area and Rishikesh and 5 at Mussoorie.

The majority of the inhabitants of the hills of the district lead a hard and simple life and owing to their poverty and difficulties of communication in the past they have been to a great extent cut off from the outside world. But, for the same reason, they have been able to preserve their local culture and traditions. The Jaunsaris are a gay and art-loving people. Their long winters provide them with ample leisure for the pursuit of these arts. Carved house doors, beams and posts and colourfully painted walls give evidence of their artistic talent. Music and dance are an essential feature of their everyday life. Every evening the young men and women of the village dance together till late at night. Jaunsari festivals are in reality occasions for festivity and merry-making when all abandon themselves in drinking, singing and dancing. Such occasions are the long Magh festival, the Mond festival of fish catching, Pandu-ka-Shradh festival, Divali and Bissu fair at which men play with bows and arrows in mock fights.

The folk-songs which are sung as an accompaniment to the dances, depict the tender feelings of love of the common man of this region. On the occasion of Divali all the *dhyantis* (girls married in other villages) return to their parents' homes. They meet their childhood friends and sweethearts and to the rhythm of songs sung in the past they dance with renewed fervour. Their songs even now give us a glimpse of their natural life. Whereas the main theme of their songs reflects their love for their parents' homes and a lament for the restrictions on their lives now, they also depict, along with the joys of hard work in the fields, the beauty of the gathering clouds, the gentle raindrops of 'Sawan' and similar sentiments showing how close to nature their feelings always run.

The common games and sports of the district are *kabaddi*, hide and seek, tug of war, volley ball and football.

Impact of Zamindari Abolition on Social Life

Prior to the abolition of the zamindari system an area of 54,387 acres was held by 8,942 zamindars. The U.P. Zamindari Abolition and Land Reforms Act, 1950 (Act No. 1 of 1951), came into operation in the district, excluding the pargana of Jaunsar Bawar, on July 1, 1952. The ex-zamindars can be classified into three categories and the effect of the Act on all these categories has been different.

Petty Proprietors—There has been no change in the general condition of the petty proprietors due to zamindari abolition as they were not dependent on zamindari income before abolition. They were mostly cultivators or businessmen and they are carrying on their professions as they had been doing in the pre-abolition days.

Middle class proprietors (those having *sir*, *khudkasht* or groves) have been affected but slightly by zamindari abolition while the others who were totally dependent on zamindari income are now not in good condition.

In this district big zamindars were mostly either tea estates owners or had other types of groves and orchards and cultivation. The condition of such zamindars is still good and they, too, have been little affected by zamindari abolition except in a few cases.

The condition of the tenants has definitely improved after the abolition of zamindari. In 1964-65 there were 9,127 *bhumidhars* and 15,672 *sirdars* in tahsil Dehra Dun holding an area of 62,095 and 48,190 acres respectively.

As already mentioned earlier, in spite of so many changes the customs and traditions of the people of Jaunsar Bawar remain unaltered. Its peculiar land tenure system did not help or encourage the downtrodden to flourish in any way. The worst sufferers have been the Koltas and their economic condition is more or less the same as in the past, in spite of various development schemes executed in this area in the past. The Sadar Sayana or the Khat Sayana (headman) was always powerful and exercised great influence in this area. He was invested with some police powers also and could punish or impose fines arbitrarily on persons who would not carry out his wishes. The land record papers were hardly ever maintained in such a systematic way as could give security to these poor people. Fatbandi was the only record till 1957 when record and settlement operations were conducted.

Prior to the Jaunsar Bawar Zamindari Abolition and Land Reforms Act, 1956, (U.P. Act No. XI of 1956) which was enforced in tahsil Chakrata on July 1, 1961, there were 22,733 zamindars holding an area of 33,148 acres. The Act made all tenants *sirdars* and they got relief from the yoke of the Sadar Sayana and other zamindars. Now they own their houses and have developed their resources with the result that they do not feel so neglected and are happier than before. Many of them have entered into better services with the passage of time and the area has made all round progress.

Zamindars have been affected to some extent on account of zamindari abolition as they have been deprived of the rental income, free services and food grains which they were getting in the past as rent in kind i.e., *batai* etc. A few of the zamindars who were not holding their fields themselves have now become landless and their condition is not so good and they have been compelled to go out to earn their livelihood through other sources of income.

Now the Sadar Sayanas and other zamindars have also taken to different trades. Many of them have taken contracts for construction of roads in the public works department. Some have grown apple orchards and are finding additional ways and means to develop their resource.

In 1964-65 there were in tahsil Chakrata 23,854 *bhumidhars* and 10,640 *sirdars* holding 34,916 and 5,236 acres of land respectively.

STATEMENT I

Area and Population

Reference Page No. 65

District and tahsil	Area (sq. km.)		Population						
	1971	1961	1971				1961		
			Persons	Males	Females	Persons	Males	Females	
1	2	3	4	5	6	7	8	9	
District									
Total	3,088	2,455.9	5,77,306	3,26,108	2,51,198	4,29,014	2,42,987	1,86,027	
Rural	2,923.1	2,288.6	3,05,529	1,68,689	1,36,840	2,13,179	1,27,747	1,03,432	
Urban	164.9	167.3	2,71,777	1,57,419	1,14,358	1,97,835	1,15,210	82,595	
Chakrata tahsil									
Total	263.9	453.0	79,128	47,233	31,895	66,784	37,640	29,044	
Rural	247.9	437.0	73,023	41,895	31,128	63,490	35,032	28,458	
Urban	16.0	16.0	6,105	5,338	767	3,194	2,608	586	
Dehra Dun tahsil									
Total	2,363.4	2,002.9	4,98,178	2,78,875	2,19,303	3,62,330	2,05,347	1,56,983	
Rural	2,214.5	1,851.6	2,32,506	1,26,794	1,05,712	1,67,689	92,715	74,974	
Urban	148.9	151.3	2,65,672	1,52,081	1,13,591	1,94,641	1,12,632	82,009	

STATEMENT II

Fairs

Reference Page No. 90

Village/town	Name	Date	Approximate attendance
CHAKRATA TAHSIL			
Chakrata cantonment	Bissu	Chaitra 27 to Vaisakha 2	1,000
Kalsi	Gandhi mela	January 30	5,000
Kalsi	Deviji	Chaitra, <i>sukla</i> 9	1,000
Kalsi	Bissu	Chaitra 27 to Vaisakha 2	1,000
DEHRA DUN TAHSIL			
Ambiwala	Maru Sidh	Magha, <i>sukla</i> 5	1,000
Azabpur	Mata	Asvina	10,000
Bapugram	Sivaratri	Phalguna, <i>krishna</i> 13	2,000
Beerpur Khurd	Sivaratri	Phalguna, <i>krishna</i> 13	30,000
Betwali Mandi	Bawari	Vaisakh-ki-Sankranti	20,000
Dehra Dun M.B.	Jhanda mela	Chaitra, <i>krishna</i> 5	1,00,000
Garhi	Tapeswar	Phalguna, <i>krishna</i> 13	1,00,000
Kheri Kalan	Jyaistha Dasahra	Jyaistha, <i>sukla</i> , 10	1,000
Lachhiwala	Sivaratri	Phalguna, <i>krishna</i> 13	2,000
Narsaran Devi	Jyaistha Dasahra	Jyaistha, <i>sukla</i> 10	1,000
Rajapur	Ambika Devi	Chaitra, <i>sukla</i> 9	3,000
Shewla Kalan	Chandarbani	Vaisakh-ki-Sankranti	5,000

CHAPTER IV

AGRICULTURE AND IRRIGATION

LAND UTILISATION AND RECLAMATION

The district of Dehra Dun can be divided into three main agricultural divisions: the Dehra plateau, the riverain land and the submontane tract. The Dehra plateau is bounded on the east by the Rispana, on the south by the Suswa Nadi and the Asan, on the west by the Tons and on the north by a line drawn across from the Tons to the Rispana, skirting the south edge of the ridge on which stood formerly the summer headquarters of the viceroy's body-guards. Of the three tracts, the Dehra plateau is the best suited for cultivation. The whole of this tract is irrigated by canals. The best quality of wheat is grown here, and sugar-cane, onions, tobacco and strawberries also grow abundantly. Next comes the riverain tract, which comprises the land between the Asan and the Yamuna and that between the Yamuna and the Suswa Nadi. In this tract there is a good deal of rice land where good crops of rice and a little sugar-cane are grown, the Katapathar canal providing irrigation to a large area in the eastern portion of this tract. There is a little of good dry land, though as a rule, it is poor. The submontane tract includes the whole of the country lying along the Yamuna as far as the Rispana. It is the worst of the three tracts. With the exception of a few patches of rice land in the ravines, which are watered in a precarious manner from hill streams which flourish when there are rains and fail when the rains fail, the rest of the land is dry, stony and unprofitable, yielding rain crops only, which are good or bad as the rains are abundant or scanty. According to the census of 1961, area under forests was 1,71,021 hectares, uncultivated land was 28,652 hectares, area under current fallows 8,480 hectares, and cultivated area 56,748 hectares and in 1970-71 forests covered an area of 1,67,878 hectares, barren and unculturable land 1,490 hectares, land put to non-agricultural uses 15,854 hectares, culturable waste 11,980 hectares, permanent pastures and other grazing lands 39 hectares, land under miscellaneous trees and groves 8,970 hectares, current fallows 2,801 hectares, other fallows 1,566 hectares, net area sown 55,647 hectares and area sown more than once 26,332 hectares.

The problem of soil erosion in the hill areas of the district is very acute due to steep slopes, shallow depths of soil and high rainfall. The common forms of erosion are sheet, gully, stream bank erosion, landslip, and land slides which cause severe damage to the area, particularly to agricultural land. The fields were defectively terraced and the fertile top soil got washed away and cultivation was done in subsoil which is very poor in fertility and therefore gave but marginal production. The total area affected by soil erosion in the district was 35,266 hectares in the plains and 14,625 hectares in hilly tracts in 1970.

The soil conservation programme in the district includes renovation of existing terraces, development of orchards by construction of contour strips, development of grass lands, construction of bunds with provision for disposal of surplus water, and levelling of fields.

At present the district has two soil conservation units, one for the plains with its headquarters at Dehra Dun which has been functioning since 1963-64, and the other for the hill areas of the district, which began working in March 1968, with its headquarters at Kalsi. It is proposed to open another unit to increase the coverage of area under this programme. The following statement shows the area, in hectares, reclaimed from soil erosion, by the two units:

Name of unit	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	Total
Kalsi	—	—	—	—	43	187	304	534
Dehra Dun	1,170	1,420	1,195	1,452	1,755	2,406	3,005	12,498

Cultivated Area

The following statement gives the figures of cultivated area in the district in the years 1901, 1921, 1941, 1961 and 1967:

Year	Cultivated area (in hectares)	Percentage to total area
1901	38,999	12
1921	40,141	10
1941	41,947	11
1961	56,748	20
1967	55,557	21

Culturable Area

This land generally includes areas under groves, forests, pastures and grazing land, fallows and other types of land known as waste. The following statement gives the figures of culturable area in the district in 1906, 1921, 1941, 1961 and 1967 :

Year	Culturable area (in hectares)
1906	2,24,961
1921	2,91,666
1941	2,68,329
1961	1,90,698
1967	1,90,656

Unculturable Area

This includes land which is not available for cultivation, such as land under water, buildings, roads and railways and that occupied by

habitation sites and graveyards. The following statement gives the figures of this area in 1901, 1921, 1941, 1961 and 1967 :

Year	Unculturable area (in hectares)
1901	42,569
1921	44,199
1941	96,062
1961	28,652
1967	16,737

In 1970-71 the net cultivated area in the district was 55,647 hectares, the culturable area was 1,94,224 hectares and the unculturable area was 15,854 hectares.

IRRIGATION

Though there is sufficient rainfall in the district, no good cultivation is possible without irrigation as the soil is very porous. All the well-known characteristics of the Bhabhar are exhibited in the Dun. Most of the streams dive into the earth at the foot of the hills and do not emerge again until they reach the lowest drainage line occupied by the beds of the Asan, Song and Suswa rivers.

The statement given below shows the decennial figures of total area in hectares irrigated by various sources in the district from 1901 to 1961 and in 1966 and 1969:

Year	Government canals	Private canals	Wells of all kinds	Other sources	Total
1901	6,607	—	7	4,033	10,647
1911	8,808	4,503	—	634	8,945
1921	5,367	4,442	—	632	10,441
1931	5,631	5,522	—	632	11,785
1941	4,618	5,760	—	632	11,005
1951	6,864	6,933	—	632	14,429
1961	7,837	—	5	7,895	15,737
1966	9,109	—	130	7,505	16,744
1969	7,933	—	2,133	6,329	16,450

Irrigation Facilities

Wells—Irrigation from wells is almost unknown. Around the year 1827, when Shore was in charge of the district, he was informed that it was quite impossible to sink a well. He asked for an establishment and money to make the experiment. A well, 69.4 metres deep, was completed at a cost of Rs 11,000. Another well, 53.34 metres deep existed in the old Gurkha lines. These wells were used for drinking as well as irrigation purposes, but both are now in disuse. In that year, the number of wells was only eight. Najib-ud-Daula, the Rohilla chief, who administered the Dun about the middle of the 18th century, had sunk many wells. They are not used for irrigation purposes in the district, except in one or two villages bordering on Hardwar. Water is found at a great depth, and in many parts of the district there is a great scarcity of it.

By 1969-70, there were 188 pucca and 9 kutchha wells in the district.

Tube-Wells—The number of tube-wells in the district in 1969-70 was four and they irrigated a very small area. A scheme for construction of 13 tube-wells is proposed to be taken up in near future.

Canals—In his *Historical and Statistical Memoir of Dehra Dun*, G.R.C. Williams remarks "Canals again have had a valuable moral effect. The powerful stimulus they have given to agricultural enterprise has gone far towards rousing the natives from their once incorrigible apathy."

Geological considerations render the profitable construction of wells impossible, so that the very existence of all villages, except those near a perennial stream, depends upon the canals which intersect the valley. The government canals, now 12 in number, present many points of contrast with the great irrigation works of the plains. Most of them obtain their supply from springs of local origin, the volume of which is proportionate to the preceding rains and snowfall on the Mussoorie hills. A defective rainfall, while it increases the demand for canal water, at the same time diminishes the supply, so that it is especially in years when irrigation is most urgently needed that the canals fail.

Compared with the more magnificent irrigation works in the plains the Dun canals are mere rivulets though they yield returns that form no contemptible item in the revenues of the district. The main problem about the canals in the district is that in spite of being considerable in length they can not irrigate large areas, because firstly, the soil being dry and porous, absorbs most of the water, which in stead of going ahead, gets absorbed in the soil. Secondly, due to the same reason again, an acre of land in the Dehra Dun requires three or four times the amount of water that would suffice for the same area in the plains.

The value of the Dehra Dun canals is not to be measured, however, only by the increased fruitfulness of the fields they irrigate as to many a village they carry down water in sufficient quantity for drinking purposes, too.

At present there are about 198 km. of canals in the district and the area irrigated averages only 8,488 hectares.

Katapathar Canal—Starting from the extreme west of the Dehra Dun, the first canal is the Katapathar canal. This canal is the least susceptible to the vagaries of local rainfall, for it taps the Yamuna from where it bifurcates. This water-course, designed in 1840-41, was not completed until 1847. It irrigates the fertile triangle of land bounded by the Yamuna and Asan rivers and the Sahaspur-Ambari road. In 1896, the canal head, which had been destroyed by a very heavy flood, was renovated. The new head was unfortunately built too near the Yamuna river and it was carried away by a very heavy flood in 1902. The present head was built in 1903 and, being at a good distance from the main stream, it appears to be safe. The total length of the canal is about 41 km. It is a contour channel for about 4 km. which is pukka, otherwise it is a kutchha canal. It irrigates an area of about 3,578 hectares.

Bijapur Canal—The Bijapur canal takes off from the Tons river beneath the village Bijapur. It was designed in 1837 to irrigate the triangular tract between the Tons, the Asan and the Bindal river close to Dehra. Commenced in 1839 the work was finished in a year. All the waters of the Tons river are deflected into this canal which, bifurcating at the village of Garhi into two branches, the Kaulagir running south-west and the Kaunli trending in a generally southerly direction, irrigates the greater part of the Dehra Dun plateau. This canal was furnished with new head works in 1905 provided with scouring sluices and grills. The total length of the canal is about 18 km., three-fourth of which is pukka. The area irrigated by this canal is 1,216 hectares.

Rajpur Canal—The earliest of all the Dun canals is the ancient Rajpur canal which takes off from the Rispana river. Tradition attributes the construction of this canal to Rani Karnavati and her consort Ajbu Kuar, who administered from the ancient capital at Nawada, the sub-Himalayan territories of the Rajas of Garhwal. Originally, the Rajpur canal was designed to convey drinking water to the town of Dehra and later improvements so increased the supply that it was used for irrigating a few village lands. The canal consists of two branches, the Dehra branch supplying the town and civil station and the Dharampur branch which conveys supply to some villages to the south of Dehra. The total length of this pukka canal is about 16 km. It irrigates an area of about 777 hectares.

Kalanga Canal—Beyond the Rispana, on the western confines of the Eastern Dun, is the all pukka Kalanga canal which was constructed in 1859-60 and derived its name from the proximity of its early head works to the famous Kalanga hills. It originates from the Song river. Its new head works, constructed in 1907, are situated considerably higher up the Song river in Tehri territory. It irrigates a fertile tract of country lying between the Song on the north and the Nagsidh forest on the south. The total area irrigated by the canal is about 180 hectares. In 1899, a new masonry channel was constructed with the object of tapping the Song in its higher reaches, and this project has greatly increased the volume of water delivered by the canal. In 1902, the Bakawala and Nathuwala minors were constructed.

Jakhan Canal—It was constructed in 1868-64. It originates from Jakhan river and irrigates the stony tract of land between Bhogpur and the north-west boundary of the Tirsal forest. The total length of this pukka canal is about 22 km. and the irrigated area is about 829 hectares.

The Chilipowala pukka canal which originates from Khalanaro is about 5 km. long and irrigates an area of 32 hectares.

Kalsi Canal takes off from Ambahva river and is about 5 km. long. The total area irrigated by this pukka canal is about 113 hectares.

The Bahadurpur pukka canal bifurcates from the Swarna river. The eight km. long canal irrigates about 128 hectares.

The Nayagaon pukka canal takes off from the Asan river. The total length is about eight km. It irrigates an area of about 500 hectares.

Jolly canal originates from the Song river. It is a pukka canal of a length of about 6 km. and irrigates about 127 hectares.

The Thanovarasi and the Bullawala canals originate from the Udalna and Suswa rivers respectively. The total length of both these pukka canals is about nine and eight km. respectively. The area irrigated by these canals is about 90 and 467 hectares respectively.

The tracts outside the influence of the government canals are, where possible, irrigated by canals made by private persons at their own expense. They are so many in number that they cannot be dealt with here individually. The private canals fall into three classes—first, those derived from hill torrents like the Swarna, the Nim Nadi and the Gahna Nadi; second, those derived from perennial springs; and the third those derived from perennial rivers like the Asan, the Re, the Song and the Suswa. The first kind are the least satisfactory. Dependent on the rainfall, the hill streams can not be regarded as but a precarious source of irrigation. Moreover, they are subject to sudden floods which, sweeping down their bed, frequently cut away large slices of the rich alluvial land and destroy the very canals which they are supposed to feed. The second kind are more reliable, their only drawback being usually the somewhat exiguous supply of water that they afford, especially in the hot weather. The third category of canals built by villagers usually serve a more useful purpose in augmenting farm produce.

The following statement shows the area irrigated by the private canals in the last four years:

Fasli year	Area in hectares
1877	407
1878	467
1879	12
1880	1,812

Progress under Three Plans

Government also provides financial assistance to the cultivators for the construction of pucca wells, tube-wells, *guls* or hill channels, and reservoirs and for the boring of wells and installation of pumping sets and power wheels on the wells. The following statement gives the number of works completed under the minor irrigation scheme in the district during the last three Plan periods and during the years 1966-67 to 1970-71 :

Name of item	First Plan	Second Plan	Third Plan	1966-67 to 1970-71
Masonry wells (no.)	—	7	17	57
Boring of wells (no.)	—	—	—	24
Power wheels (no.)	1	6	9	11
Pumping sets (no.)	—	7	12	108
Tube-wells (no.)	—	—	6	56
Hill <i>guls</i> (km.)	2.2	33.2	102.3	171.8
<i>Hauz</i> (reservoir) (no.)	—	19	67	190
Total irrigated area from these sources (hectares)	4	20	435	1,415

A number of new schemes of minor irrigation were in hand at the end of this period, to be completed soon. The following statement gives relevant data about them:

Schemes	Number	Length (km.)	Cost (in Rs)	Area to be benefited (in hectares)
Masonry wells	15	—	45,000	18
Pumping sets	80	—	1,18,000	96
Tube-wells	20	—	2,00,000	160
Hill <i>guls</i>	—	45	13,50,000	270
<i>Hauz</i> (reservoirs)	70	—	1,40,000	56

AGRICULTURE INCLUDING HORTICULTURE

Soils

In regard to the nature of the soil, Mr Ross the district officer designated as superintendent of the Dun says, "The Dun is without doubt here and there very fertile and has some very fine land, especially in the Eastern Dun, but it cannot be called a good wheat country : there is something wanting either in the soil or the climate. Where there is irrigation, there are fine crops, but the wheat is never equal to the plains. Where there is no irrigation, it is a perfect matter of chance what the yield is, or whether there will be any yield at all. The surface soil is as a rule shallow, and below there is a gravel subsoil; this dries off all the moisture from the thin upper layers very soon, and so unless there is good and seasonal rain, the yield of spring crops dwindles down to nothing."

It appears that people in the hills generally do not discriminate between soils on the basis of their composition as in the plains. The classification of soils differs in the two tahsils of Dehra Dun and Chakrata. In the former, five types—*kachiana* (*kachiana plus* and *kachiana*), *goind* (I and II), *dakar*, *raunsili* and *sankra*—and in the latter, three—*kyari*, *ukari* and *khil*—are broadly recognized.

The soil known as '*kachiana plus*' is confined to the town and precincts of Dehra Dun and is utilised for garden cultivation and is adequately irrigated. *Kachiana* is the soil in all plots whether large or small, where irrigation is secure and utilized to the full. The soil values of *kachiana* vary in all circles formed on the basis of natural divisions being the highest lie in the Mash circle of the eastern Dun. *Kachiana plus* and *kachiana* are, however, not important soil classes, since they account for only 2.1 per cent of the total cultivated area of the tract. The *goind* I and II are the rich and heavily manured soils found in Dehra Dun tahsil, in the small plots (*baras*) attached to each house. The *goind* area of the tahsil consequently is more restricted than the *gauhan* of the plains. *Dakar* I and II were considered of little importance in the Settlement of 1940. *Dakar* is good clay and on rich *dakar* land unirrigated crops can stand even long breaks in the monsoon. The three sub-types of *rausli* or *raunsili* (I, II, and III) are also found in the Dehra Dun tahsil, and represent a good loam. *Sankra*, an inferior loam or clay of little depth and mixed with stones, resembles the *bhur* of the plains. The area of irrigated *sankra* is not large. In circles where the percentage of superior soil is substantial, the inferior *sankra* soil is obviously of little value. On the other hand, where *sankra* predominates, as in the two submontane circles and the hill tract, the proportionate value of *sankra* rises. Unirrigated rice is seldom a failure in the Dun unless it be grown on *sankra* land. *Rausli khadir* I and II are normally found in the eastern Dun.

In the Chakrata tahsil the soils found are *kyari* (or irrigated), *ukari* (or unirrigated) and *khil* which is considered to be a good soil. Irrigated land is mostly found in the valleys where rivers and streams flow. The other types of land are found in the hill areas where cultivation is carried on in terraced fields. Cultivation on unirrigated and untterraced steep hill slopes is called *khil*. The fields are seldom manured because the land regains its fertility from the ashes of burnt grass and shrub. Naturally these fields are left fallow to allow grass and other vegetation to grow again, to be burnt and utilized for manuring afterwards. *Khil* does not require any watch or attention and once the seeds are sown the cultivator has only to wait for the harvest.

Cultivation

Agriculture in the Dun valley is carried on in the same way as in the plains, but in the hill areas it requires hard labour and skill. The facilities for irrigation from canals and rivers are abundant but there is great deficiency of manure. On the slopes of hills and the sides of ravines, the fields have to be cut in steps, one above another, and are called terraces.

Cultivation in the hill tract of the Dehra Dun tahsil and throughout the Jaunsar Bawar area is of two descriptions, regular and intermittent.

The hills, however, contain very little level ground and terraced cultivation is, therefore, the rule. The fields are made by building up stones into a wall at the lower part of the slope and excavating the upper part until the whole becomes approximately level. As, however, the soil is very thin on hillsides, the effect of carrying out this operation at once would be to bury the soil under the stones. Usually a small wall is built up and a small excavation made during the first year, the operation being completed in the course of time by weather, tilth and diluvion from higher fields. Terraced fields form the backbone of hill cultivation. The fields vary in width. On the top of the hill, or where the slope of the hill is gentle, the width is considerable and terracing is slight, otherwise the width of the fields is comparatively little. Terraced fields, when once constructed, are very carefully looked after. They are lavishly manured and when water is available, or in years when the rains are good, produce very good crops.

Intermittent cultivation consists of small patches of hillsides cleared of shrubs and grass usually by fire and, as the hillsides are usually steep, an implement resembling a small pick-axe, called *kallar*, is used. These patches are cultivated for a year or so and then left fallow, both to recuperate and also to enable the coarse grass to grow. *Khil* cultivation is seldom manured; the land is considered to be sufficiently refreshed by the burning of grass and shrubs, the ashes of which are spread over it. Owing to the slope of the land the quantity of seed sown is small compared with that necessary in terraced fields. One of the disadvantages of this type of cultivation is that it disintegrates the hillsides and causes slips, which often seriously damage the more valuable terraced fields at the foot of the hills. Unlike the terraced cultivation, it requires no initial expenditure; only the seed is sown, the land receiving no further attention until the harvest is reaped.

Harvests

Throughout the district there are two harvests—the Kharif, sown in June or a little earlier in the hills and reaped in September and October, and the Rabi, sown in October-November and reaped in March in the plains and in April and May in the hills. The chief crops of the Kharif are rice, *mandua*, *jhungora* and *sonk*, with the pulses, *urd* and *kulath*. Another important crop is *tor* (or *arhar* of the plains). It is grown in the hilly areas, is an autumn crop, and is subject to a somewhat obscure withering disease. Many kinds of rice are grown in this area, both superior and inferior. They are sown from March to May, before the rains, and do not need much irrigation. *Arjuna* and *nakha* are the commonest kinds in the inferior class. The superior qualities are *bansmati*, *ramjawain*, and *nayadhan*. These superior kinds of rice are transplanted and cultivated in small terraced and irrigated beds called *kyaris*. *Cholai* is another Kharif crop and is peculiar to the hills.

The chief Rabi crops consist of barley, wheat and mustard. Rabi crops in fields at higher altitudes ripen late. Sugar-cane is sown in the best class of villages around Dehra Dun.

Kharif

Paddy is one of the most important food crops in the district. It requires good quantity of rainfall or suitable irrigation facilities, fertile

soil and a considerable amount of labour for good yield. The area covered by paddy during 1967-68 was 13,102 hectares.

Maize is sown in the *baras* or small plots of lands immediately adjoining the homesteads. The area covered by maize during 1970-71 was 12,142 hectares. In the hilly areas *china*, an indigenous species of millet, is largely grown.

Sugar-cane is an important Kharif cash crop. It is sown in the best class of villages in Dehra Dun tahsil, but is often damaged by frost. Its cultivation has increased enormously since the opening of a sugar factory at Doiwala in 1924. *Mandua* is another Kharif crop, and in 1970-71, the area covered by it was 5,974 hectares.

In 1827, Dr Royle, superintendent of the Botanical Garden, Saharanpur, recommended experimental tea cultivation in the Himalayan areas. In 1863-64, the area under tea in the district was 687.96 hectares, and had risen to 1,257 hectares by 1970-71.

Rabi

Wheat is the principal crop of Rabi and is grown in almost all parts of the district. It is normally sown alone. The dried stalks of the wheat plants make good fodder for cattle. Wheat needs careful and deep ploughing, timely and sufficient manuring and irrigational facilities, besides hard labour. In 1970-71 it covered an area of 23,826 hectares.

Barley which is also an important Rabi staple, neither requires as much labour as wheat nor a highly fertile soil or much irrigation. It is sown alone or in combination with wheat, gram and peas. The area under this crop, in 1970-71, was 2,823 hectares.

Gram adds to the fertility of the soil. It is sometimes sown alone and sometimes with wheat, pea or barley. In 1970-71, areas covered by gram and pea were 938 and 357 hectares, respectively.

The Statement I given at the end of chapter gives area under different food crops in the district from 1961 to 1970-71.

Non-food Crops

Mustard covered an area of 74 hectares, *tora* 848 hectares and fodder 1,707 hectares in 1970-71.

The cultivators of Jaunsar Bawar formerly enjoyed the privilege of cultivating poppy. Records show that poppy cultivation has probably existed here from the days before the British occupation. Poppy grows in places climatically unsuited to ginger and turmeric and like them it was a crop on which the cultivator depended for money to pay the government revenue. Recently its cultivation has been banned and cultivation of fruits is being encouraged as a substitute by the horticulture department.

Horticulture

Vegetables and fruits which form an important proportion of Zaid crops occupied an area of 1,920 hectares in 1969-70. Mango, guava,

peach, grape, strawberry, litchi, pear and lemon are the main fruits grown in the district. Among vegetables, potato is the most important crop and covered an area of 523.4 hectares in 1967-68.

In Chakrata there are two government nurseries or gardens, while in Dehra Dun, in addition to six private nurseries, there are two government nurseries—the circuit house garden and the government garden located at Mussoorie.

In 1969-70 as many as 74,407 fruit plants and 5,543 kg. of seeds were distributed to cultivators.

All kinds of vegetables are grown in the district. Potato cultivation in the Mussoorie hills is an old and established industry. The cultivators, besides, supplying vegetables to the major towns of the district also export a considerable portion to other districts. The common vegetables grown here are *baingan* or egg plant, radish (*muli*), *bhindi*, carrot and various beans. The *arvi* or *ghuinya* is a very common vegetable in the Dun valley and the lower hills. Pumpkins and gourds of various kinds grow wild and are also cultivated. Melons are planted in the *khadirs* near the banks of rivers.

Improvement of Agriculture

Increase in agricultural produce is sought to be effected by the use of improved seeds and implements, soil conservation, greater use of fertilizers, effective use of local manuring resources including green manuring, double-cropping, full utilisation of the existing irrigation resources and adoption of other improved agricultural practices and plant protection measures.

Implements—Formerly the old and traditional implements like wooden ploughs, sickle, wooden harrow, long-handled wooden mallet, *phavra* etc., were in use. The farmers in the district are gradually taking to an increasing use of improved implements. The following statement gives the number of agricultural implements in the district according to the live-stock census reports of 1956, 1961 and 1966 :

	1956	1961	1966
Ploughs	25,660	27,644	28,395
Tractors	120	62	89
Two-wheel tractors	—	—	7
Oil engines (for irrigation)	3	8	5
Electric pumps (for irrigation)	1	2	—
Sugar-cane crushers	123	124	67
<i>Ghanis</i> (oil-seed crushers)	163	209	145
Carts	—	4,768	4,488
Persian wheels or <i>rahats</i>	—	6	117
Cultivators	—	—	93
Improved sowing machines	—	—	9
Improved threshing machines	—	—	85
Chopper machines (chaff-cutters)	—	—	4,767
Spraying machines	—	—	65

The following statement shows the number and names of new scientific agricultural machines, implements and tools distributed by the agriculture department in the district in 1970-71:

Name	Number
Power threshers	16
Power tillers	4
Power sprayers	1
Tractors	33

Seeds—Cultivators in the district meet most of their requirement of seed from seed stores of the agriculture and co-operative departments. The co-operative seed stores supply seed on *sawai* basis while those of the agriculture department on cash basis. Farmers also exchange seed among themselves.

The *sawai* seed is recovered after the harvesting of crops through the field staff posted at the seed stores. There were five seed stores of the co-operative department in the district in 1970-71, those at Vikas-nagar, Sahaspur and Harrawala, being opened in 1948-49, and at Rishikesh and Rani Pokhri, in 1955-56 and 1959-60, respectively.

There were eight seed stores of the agriculture department in 1970-71 which supplied seeds of improved varieties.

The following statement shows the total quantity (in quintals) of seeds of different cereals distributed by all the seed stores in the years from 1966-67 to 1970-71 :

Seed	1966-67		1967-68		1968-69		1969-70		1970-71	
	Agriculture	Co-operative	Agriculture	Co-operative	Agriculture	Co-operative	Agriculture	Co-operative	Agriculture	Co-operative
Hybrid maize	2.00	—	26	2	37	18	40.00	16	28.00	2.00
Improved paddy	33.38	22	52	86	30	28	28.90	17	62.40	9.00
U.P. paddy	79.00	180	229	138	35	187	49.80	106	34.00	82.66
Mexican wheat	266.00	148	299	291	240	189	246.00	301	152.11	129.00
U.P. wheat	230.00	2,272	244	2,255	127	2,220	100.04	1,836	173.07	224.96

Soil Nutrients—Manure is usually applied to the land immediately before it is sown. Leaf mould from the forest is to a certain extent utilized but the common form of manure is stable litter. All the fields are more or less manured, the only exception being the *khil* lands. *Lobia* (*Vigna catieng*), *mung T-1* (*Phaseolus radiatus*), *mung T-44* and *mung baisakhi* are some of the major green manure crops sown in the district. In 1970-71, the quantity of seed of green manure crops distributed in the district was 9.33 quintals and the area covered was 726 hectares.

Chemical fertilizers are also mainly distributed through the seed stores of the agriculture and co-operative departments, though private shops also sell them to cultivators. Those that are popular are the nitrogenous, phosphatic and potassic ones in that order. The following statement shows the targets and achievements of the distribution of chemical fertilizers for Rabi and Kharif during the years 1969-70 and 1970-71 (in metric tonnes) :

Fertilizers	Kharif				Rabi			
	1969-70		1970-71		1969-70		1970-71	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Nitrogenous	396	331	514	371	376	459	600	540
Phosphatic	198	87	257	70	188	151	300	217
Potassic	198	36	247	36	188	101	100	118

Rotation of Crops and Fallowing—The practice of growing different crops in rotation on the same piece of land has been followed since times immemorial by the cultivators of the district, though the knowledge had been empirical rather than scientific. Now, better methods of rotation of crops have been evolved and cultivators are adopting them gradually. Rotation of crops varies with the nature of the soil and the irrigation facilities available. In the canal irrigated areas, the normal rotation is transplanted rice, more often of the valuable *bansmati* variety, followed by wheat if sufficient manure is available, and if not, by peas and barley. In the eastern Dun, sugar-cane is followed by rice. The common rotations are *mung-maize* or *paddy* and then wheat; *maize-soyabean-wheat-bhindi*; *maize-early potato-late potato*; *paddy-potato-wheat*; *maize-soyabean-sugar-cane*; *maize-toria-wheat*; and *wheat-sugar-cane*.

Mixed Cultivation

Sowing more than one kind of crop in the same field in a single season gives additional yield even in small holdings and also increases the fertility of the soil. Adverse weather conditions and pests and diseases also generally affect only one of the two crops sown, thus often ensuring at least one fair crop.

Mixed cultivation of maize and sugar-cane, sugar-cane and wheat and ginger and maize, gram and pea and barley and gram or pea and wheat and mustard, is being done on a large scale. This has been made possible due to improved seeds, sufficient use of water, improved agricultural methods and adoption of other methods of intensive cultivation.

Agricultural Diseases and Pests

Various plant diseases and pests cause great loss to the produce in the district. Plant protection activities of the government aim at the destruction of pests, the treatment and eradication of plant diseases, and adoption of a range of preventive measures to increase the quality and quantity of the yield. Animals which mostly damage the crops are deer, pigs and monkeys. Since all species of deer are essentially browsers, crops have some chance of partial recovery from their attention, but pigs get down to the very roots and thereby render any sort of recovery impossible. Monkeys destroy far more than they eat and are fortunately not nocturnal in their habits or else they would constitute a very serious menace. Among the rodents, squirrels and rats also cause serious damage to the crops. The same remarks apply to the various species of parakeet, which occur in the district in vast numbers.

Formerly the farmers employed traditional remedies of pest and disease control. They beat drums to drive away the swarm of locusts and weed out the diseased leaves. To eradicate the rat menace they used to inundate the fields with water. Now more scientific methods are available.

There was no single pest or disease which appeared in epidemic form during the year 1970-71. Plant protection work is looked by the plant protection department in the district. In the Kharif of that year 4,318.00 hectares of paddy and 1,733.33 hectares of maize crop were protected against pests and diseases by spraying and dusting pesticides and insecticides like BHC, DDT and Aldrin. In the Rabi, 10,519.82 hectares of wheat crop were saved from pests and diseases. About 41,550 fruit trees were also sprayed against pests and diseases in that year. The following statement shows other work done by the plant protection department in the district in 1970-71:

Work done	Area protected (in hectares)	
	Targets	Achievement
Seed treatment	8,000	8,522
Killing field rats	4,732	8,204
Against other pests and diseases	6,924	7,416

Agricultural Co-operatives

Co-operation in some form or other, based on custom and tradition, has been an age-long practice, particularly in operations such as irrigation, ploughing, harvesting and threshing. The co-operative societies now a days perform a number of major services such as distribution of improved seeds, loans, implements and fertilizers, and provide facilities for marketing of agricultural produce. There were five co-operative seed stores in the district in 1970 which distributed improved seeds of cereals to the cultivators. The Vikasnagar marketing society registered in 1956-57 and the Dehra Dun marketing society registered in 1960-61 are the two co-operative marketing societies in the district. In the former there were 7,492 members and the share capital was Rs 1,77,874.00 in 1970-71; the latter had only 1,814 member and the share capital amounted to Rs 45,027.00 in that year.

The following statement gives the produce handled by the two societies in 1970-71 :

	Agricultural produce handled (in quintals)
Co-operative Marketing Society, Vikasnagar	3,840.43
Co-operative Marketing Society, Dehra Dun	3,102.61

These societies were responsible for credit recovery also. The demand of the Vikasnagar society stood at Rs 9,66,900 whereas recovery was only Rs 1,16,526 and the demand of the Dehra Dun co-operative marketing society was Rs 55,22,850 most of it remaining unrealised during the year.

The following statement shows the amounts of loan advanced to the members by these co-operative societies during 1970-71 :

Loan	Amount given to agricul- turists (in Rs)		Amount given to non-agricul- turists (in Rs)	Total (in Rs)
	Kharif	Rabi		
Short-term	31,84,000	10,01,000	11,25,000	53,10,000
Medium-term	—	—	22,22,000	22,22,000

Intensive Farming Programme

The programme was started in 1967-68, when 2,744.00 hectares of land was first brought under it. In 1970-71, area under this programme was increased to 14,616.38 hectares. Intensive cultivation of *sanker* (hybrid) maize, indigenous maize and improved varieties of paddy is done in the Kharif. In the Rabi *desi* wheat and the improved variety of Mexican wheat, pea, gram and barley are sown in the district.

Facilities for soil testing have been made available at Doiwala and Sahaspur, where the farmers can get the soil of their fields examined. This is necessary to find out the suitability and dosage of particular fertilizers required by different soils.

Guchchi Production

The production of *guchchi* was limited to Himachal Pradesh till recent years, but in the year 1969-70, it was produced at Dehra Dun on an experimental basis and proved successful. The cultivation of *guchchi* has been given more encouragement in 1970-71 and four centres were opened. It is hoped that it will give economic incentive, and extra food to the local population.

ANIMAL HUSBANDRY AND FISHERIES

Live-stock

Domestic animals are of great importance in Jaunsar Bawar where people generally lead an agricultural or pastoral life. Attempts are being made in the district to improve the local breed which is of poor quality, specially of cows and buffaloes, by natural and artificial methods of insemination.

The following statement gives the figures of the live-stock population in the district according to the live-stock census of 1966:


Live-stock	Number
Bullocks (over 3 years)	57,890
Cows (over 3 years)	51,209
Male buffaloes (over 3 years)	994
Female buffaloes (over 3 years)	23,127
Sheep	35,211
Goats	80,689

Cows and buffaloes are the main sources of milk while male cattle are used for ploughing the fields, some being selected for breeding purposes. The hill cattle generally differ from those of the plains in build, particularly in size. D.N. Majumdar remarks in his book "*Himalayan Polyandry*," "The cows are wretched milkers, and whatever quantity of milk they produce is used by the villagers to prepare ghee (clarified butter); thus one finds great difficulty in getting milk to drink in the villages." Sheep and goats are also reared in great number, both for meat and wool. Wool is of immense importance and is used for making home-spun woollen cloth and blankets. Pigs are also reared for their bristles and meat, their skins being used as water containers (*mashaks*).

Development of Live-stock

Improvement of breed of the cattle is an integral part of the activities of the animal husbandry department in the district. This department took steps to introduce improved and better breeds of cattle during the three Plan periods. In the First Five-year Plan, pedigree bulls were supplied to different panchayats to improve the local stock. Three different breeds have been approved for the district, viz., the Haryana and the Murra in Dehra Dun tahsil and the Sindhi and the Murra in Chakrata tahsil.

To meet the demand of pedigree bulls, the government opened one artificial insemination centre at Dehra Dun, with four sub-centres at Nehrugram, Ajabpur, Raipur and Harrawala in the First Five-year Plan period. A cattle breeding-cum-dairy farm at Kalsi was also started for producing Sindhi bulls for the hilly areas. Government also provided financial help to the people to purchase cows and buffaloes of good breeds. The amounts sanctioned as *tagavi* in the district for this purpose are shown in the following statement from First Plan period up to 1970-71:



Period	Amount allotted (in Rs)	Amount utilized (in Rs)	No. of milch cattle purchased
First Plan (1954-55 to 1955-56)	13,000	12,900	32
Second Plan	17,400	16,025	43
Third Plan	10,500	9,300	25
1966-67	2,000	2,000	2
1967-68	2,500	2,500	6
1968-69	3,600	3,600	6
1969-70 to 1970-71	7,200	3,600	6

In the hilly area of Jaunsar Bawar, two stud ram centres at Mashak and Kunain were opened with 20 Rampur Bushair rams in each, in the First Five-year Plan period. They were given to the sheep breeders free of cost during the tapping season to improve the breed of their sheep.

In the Second Plan period two veterinary hospitals at Doiwala and Sahiya were opened. One artificial insemination sub-centre was established at Doiwala and three stockman centres at Naghau, Mohna and Timli. Another artificial insemination sub-center was started at Sahaspur in Dehra Dun tahsil. The scheme for rounding up stray cattle to solve the problem of fodder scarcity was started from the beginning of the Third Five-year Plan when a district *gosudan* at Ambari was also set up.

The following statement shows the number of cattle which were inseminated artificially during the First, Second and the Third Five-year Plan periods and from 1966-67 to 1969-70 and 1970-71 :

1	2
First Five-year Plan	561
Second Five-year Plan	4,186
Third Five-year Plan	7,442
1966-67	1,034
1967-68	1,402
1968-69	1,832
1969-70 to 1970-71	5,186

In the year 1970-71, there were 16 stockman centres in the district serving as first-aid dispensaries and also affording facilities for controlling cattle diseases and providing such other services as artificial insemination, maintenance of records of breeding and milk yields of cows and buffaloes. There is also a stockman training centre in the district.

In 1970, there were eight veterinary hospitals in the district and were located at Dehra Dun, Mussoorie, Doiwala, Vikasnagar, Sahiya, Tuini, Chakrata and Rishikesh. Besides, there were two veterinary infectious diseases hospital at Sahaspur and Subhashnagar. The following statement shows the number of animals treated at these hospitals from the First Five-year Plan period to 1970-71 :

Period	No. of animals treated
First Five-year Plan	89,403
Second Five-year Plan	1,59,567
Third Five-year Plan	1,97,579
1966-67	48,011
1967-68	48,692
1968-69	60,196
1969-70 to 1970-71	1,80,055

The number of cattle vaccinated against various diseases and the number of useless male cattle castrated during 1970-71 are given in the statement below :

Period	No. of animals and poultry vaccinated					No. of animals castrated
	(Haemorrhagic Septicaemia)	Rinder-pest	Ranikhet disease	Fowl pox	Others	
First Plan	1,23,920	70,072	—	—	—	3,329
Second Plan	1,16,209	1,21,042	32,356	10,950	—	10,749
Third Plan	58,988	91,095	75,703	40,051	—	10,077
1966-67	17,314	44,581	27,087	22,893	—	3,036
1967-68	17,409	27,087	30,828	17,633	—	2,129
1968-69	33,119	25,314	40,781	15,685	—	3,147
1969-70 to 1970-71	64,033	1,33,924	1,25,715	52,108	3,541	9,365

Feeding and Housing

The area under fodder crop is not very extensive, being only 129 hectares in the district in 1970, *M.P. Chari*, *lobia* and *berseem* constituting the main nutritious fodder crops.

Dwelling conditions of cattle are not very satisfactory. There are as yet no community sheds for cattle in the district and they are accommodated by the villagers in their own homes. Well-to-do cultivators have now started paying some attention to improving the housing conditions of their cattle.

Dairy Farming and Milk Supply

The only government dairy farm in the district is that at Kalsi, established in 1954, and had 324 cattle in 1969-70. The average production of milk at the farm during 1969-70, was 1,28,797.75 litres, the supply being made to Dehra Dun city.

There is also a co-operative dairy, named the Dehra Dun Dugdh Utpadak Sahakari Sangh, Limited, which is located at Dehra Dun and was established in 1966-67. It collects milk from the members of its branch societies and does not keep any cattle of its own. The main products of this dairy are milk, butter, cream and ghee, the total produce being 36,659.1 litres, 1,460.9 kg., 8,818.2 kg., and 6,426.7 kg. respectively, in the year 1969-70.

A co-operative milk union was established, in the year 1966-67, at Raipur, at a distance of three kilometres from Dehra Dun. It also collects milk from members and supplies it to consumers and prepares

butter and ghee in addition. The position of production and supply during the year 1970-71 was as follows:

Commodity	Total production	Total supply
Milk	3,72,000 litres	3,53,371 litres
Butter	1,077 kg.	972 kg.
Ghee	7,296 kg.	6,829 kg.

The milk union also distributed *tagavi* and loans to cultivators for the purchase of cows and buffaloes from the beginning of the Third Plan period up to 1970-71, to the extent of Rs 50,000 and Rs 88,500, respectively.

There were also about 150 private dairies, with 10 animals or less, and 60 others having more than 10 animals in 1970.

Other Domestic Animals

The following statement shows the number of other animals of improved breed distributed during the first three Five-year Plan periods and then up to 1970-71:

Year	Bull	Rams	Bucks	Boars
First Five-year Plan	36	107	141	11
Second Five-year Plan	70	454	249	18
Third Five-year Plan	54	63	76	17
1966-67	1	9	—	3
1967-68	10	58	24	2
1968-69	8	27	67	3
1969-70 to 1970-71	7	125	60	6

Sheep and Goats—The number of goats has always been more than that of the sheep. Under the Five-year Plans attempts were made to improve the breed of goats. In 1961, there were 35,343 sheep and 73,214 goats, whereas their numbers in 1966 was 35,211 sheep and 80,689 goats. Like sheep, the majority of goats are found in the rural areas where there are abundant grazing facilities.

A sheep and wool research station at Pashulek was started during the First Five-year Plan period to undertake research on the crossbreeding of local sheep with foreign rams. In the Second Plan period two more stud ram centres were opened at Machewa and Poonapokhri for improving the quality and quantity of wool of local sheep in the Jaunsar Bawar area. In the Third Plan period the three stud ram centres were converted into sheep and wool extension centres where number of rams was increased to 50 and were provided to local breeders at a very nominal cost.

Pigs—Pigs are generally reared for their bristle and flesh. There were 1,860 and 2,944 pigs in the district in 1961 and 1966, respectively.

Poultry

There is ample scope for poultry development in the district where there were 35,865 fowls, 226 ducks and 175 other birds according to the live-stock census of 1961. In 1966 number of fowls was 55,709, while there were 225 ducks and 125 other birds.

In 1970, there were 563 poultry farms in the district. The poultry breeders obtain chicks from government poultry farms and other private sources. 43,230 one-day old chicks and 8,979 one-month or two-month old improved birds were distributed by the animal husbandry department during the year 1970-71. Almost all the poultry produce is consumed in the district. In the year 1964-65, the Dun valley co-operative poultry marketing society at Dehra Dun was started but it has not shown any progress so far. Some more co-operative societies are likely to start production and marketing of poultry products shortly.

Fisheries

The rivers of the district swarm with fish, the chief being the *mahaseer* which in the Ganga and the Yamuna attains an enormous size, sometimes weighing 36 kg. to 40 kg. Other kinds of fish are the trout, *saul chal*, *giri*, *rohu*, *kalabans*, *gunch* or fresh-water shark, *karaunch*, *dongra*, *pathali*, *bam*, *dola*, *sua* and *singara*. The best fishing spots for *mahaseer* are at Raiwala on the Ganga and at the junction of the Yamuna and the Asan. There are many good trout pools in the Suswa and Song rivers. The places where these rivers join the Ganga are notable for fishing.

During the Third Plan period a scheme for the development of *mahaseer* was started. Research on fresh-water fish of the Dun valley was also undertaken, and in the Clement Town lake, owned by the proprietors of the Himalayan Drugs Company, Dehra Dun better varieties of various small fish are introduced every year. In 1970, nearly 21,923 fingerlings were also supplied by the government to private pisciculturists in the district.

FORESTRY

Dehra Dun is distinguished from most other districts in the State by the existence of very large forests, chiefly stocked with sal, here and there with an admixture of inferior timber locally known as *kuket*. In 1970-71, the total area under forests in the district, was 1,53,058.0 hectares. Forests and waste lands of the district have been brought under scientific management by the forest department.

Forest Products

Forest products play an important role in the economy of the district. Besides supplying fuel, fodder, bamboos and medicinal herbs, they also yield a variety of products like honey, lac, gum, resin, catechu, wax, horns and hides. *Maljhan* fibres and leaves, *kanak champas* leaves,

myrobolans (*harra*, *bahera* and *aonla*), *rohini* seeds and *kamela* powder are also extracted from the forests. In 1970-71, timber measuring 14,296.00 cubic metres, and fire-wood weighing 63,048 metric tons were yielded by the forests of the district.

The institutions related with forestry and situated at Dehra Dun are the Forest Research Institute, the Indian Forest College, and the Northern Forest Rangers' College. The Forest Research Institute has, at present, two main wings—forestry education, and research in forestry biological science and forest products utilisation. These institutions were established here about the year 1880. The Indian Forest College runs a two-year diploma course for training the officers of the Indian Forest and the Provincial Forest services. The Northern Forest Rangers' College imparts training to forest rangers. It is a certificate course and is of a two-year duration.

NATURAL CALAMITIES

Scarcity and Famines—The district enjoys an unusually copious rainfall, and owing to its physical configuration it is seldom that the monsoon is an entire disappointment. In addition to this climatic advantage, owing to which complete failure of crops has been hitherto unknown considerable tracts of the Dun valley are insured against crop failure by the existence of canals. The district is, therefore, both naturally and artificially, insured against the consequences of crop failure.

In 1861, the crops were poor but the distress nowhere went beyond a scarcity and the famine works on the road through the Mohand Pass amply sufficed to meet the wants of all those needing relief. In the year 1897, a famine was declared in the lower *khas* of Jounsar Bawar. Distress was severely felt in this area. The needs of the able-bodied were met by offers of work on a number of paths. In 1907, a scanty monsoon resulted in a very unsatisfactory autumn harvest. The existence of scarcity was officially recognised towards the end of January, 1908, in the Chakrata tahsil and in April in the hill and submontane portions of the Dehra Dun tahsil. The Dun valley itself was not affected.

During the past six decades the district has been virtually free from any serious natural calamity causing losses to the crops or the people. It was only in 1969 (1376 Fasli) that a hail-storm occurred in Dehra Dun tahsil affecting *rabi* crops in an area of about 819 hectares. Relief in the form of remission in land revenue amounting Rs 3,814 was provided by the State Government.

Heavy rains (flood) of 1971-72 caused great damage both to the crops and people. An area of 290 hectares including 140 hectares of agricultural land was affected. A relief in the form of house-building grant amounting Rs 20,585 and a suspension in land revenue amounting Rs 44,753 was provided by the government. Besides, P.W.D., canal department and the various local bodies also suffered considerable losses, amounting to Rs 4 lacs, 3 lacs and 15.14 lacs respectively.

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STATEMENT I

Area (in ha.) under different food crops in the district

Year	Wheat	Barley	Gram	Pea	Potato	Jowar	Bajra	Paddy	Malze
1	2	3	4	5	6	7	8	9	10
1961-62	19,356	3,522	2,167	543	340	—	—	9,284	834
1962-63	17,241	922	1,756	586	171	—	—	—	—
1963-64	22,434	3,300	1,850	778	412	54	40	1,355	10,473
1964-65	21,242	3,250	1,359	529	375	24	44	12,680	10,294
1965-66	21,006	2,689	1,059	473	433	13	41	12,507	10,399
1966-67	21,164	3,011	1,189	460	491	—	33	12,669	10,695
1967-68	21,443	3,249	891	454	493	—	38	13,102	10,618
1968-69	22,688	2,424	963	603	504	30	—	12,406	12,780
1969-70	22,333	2,796	870	343	417	10	16	12,543	11,118
1970-71	23,326	2,823	933	357	411	—	12	13,247	12,142

CHAPTER V

INDUSTRIES

Old-time Industries

The production of woollen handloom-cloth has been an important industry of the district since early times. Koltas, some of whom are real experts at weaving wool, have traditionally engaged in the trade, and it is said that formerly they used to meet all the requirements of the district. Although the industry exists even today, it has considerably declined. By the beginning of the twentieth century only coarse blankets were woven. However, efforts have been made after Independence to revive this industry and to place it on a sound economic footing.

Before 1840 a government tea plantation had been started experimentally at Kaulagarh near Dehra Dun under the management of Dr Jameson of the Saharanpur tea gardens. The farm covered 400 acres. In 1851, Mr R. Fortune, who had been to China, inspected the Kaulagarh estate and reported the plants to be poor, and the land flat and unsuitable. He said that the leaf was plucked too early and the hot winds of April, May and June were very prejudicial to the plant. The London brokers, however, reported in flattering terms on a sample sent to them in 1846 and the tea was found to be as good as Chinese tea and similar to the blackish curled Tetsang variety. Progress in the popularisation of the tea industry was very slow and in 1847 only eight acres were under tea. In 1853-54 four or five local inhabitants and three or four Europeans began experimentation in plantation of tea. The planters were ignorant of the nature of the tea plant and the treatment it required. Few had any reserves of capital to carry them over the years of initial experimental losses. Very large areas were planted whereas it would have been wiser to conduct experiments at first on a smaller-scale. The process of manufacturing the wet leaf was known. By 1863-64 the total area under tea was 1,700 acres, which increased to 2,000 acres in 1872, with a yield of 2,07,828 lbs. Thus the average outturn per acre exceeded Dr Jameson's estimate. The government tea estate, however, continued to be worked with fluctuating success for many years and in 1867 when the industry was firmly established it was sold to the raja of Nahan for £ 20,000 (Rs 1,30,000). By 1872 the industry had emerged from the clouds of failure and suspicion, and with improved methods prospered greatly. A market was obtained for green tea, which was sold to merchants from Kabul and central Asia. By 1878 the industry had reached its zenith. The abolition of the duty on Chinese tea in 1882 was a severe blow to the industry and at the same time the central Asian market was closed. In 1907, Mr Dampier wrote : "The industry has fallen on evil days. The average price has fallen from about eight annas a pound to a little over four annas a pound." The markets in India were flooded with tea from Assam. However there were ten small-scale units in 1970 which still produced tea.

Captain Hutton of Mussoorie initiated the sericulture industry in the district in 1856, when he discovered the existence of wild silkworms. In 1858, the government allowed him to proceed with his plans for silk manufacture. But in 1859, he reported that the experiment could not succeed due to technical reasons. He continued, of his own, however, to make experiments with wild silkworms. In the result he claimed to have improved the breed and again asked for government assistance which was refused on the ground that the interest taken in silk industry in Europe was great and that captain Hutton's experiment had probably been anticipated.

In Dehra Dun the silkworms (*Morus senensis*) had been introduced from the Saharanpur mulberry gardens in 1850. In 1867 captain Murray began experimenting with seed obtained from Bengal. The government sanctioned the opening of a sericulture farm at Dehra Dun in 1874 on the basis of successful experiments carried out by Mr H.G. Ross, the superintendent of Dehra Dun. Mr Ross leased for five years a plot of 80 acres from the American Methodist Missionary Society. A sample of the produce of the farm was, pronounced in 1875 by Messrs. Gillanders Arbuthnot and Company of Calcutta to be of excellent quality with a high yield, twice that of Bengal cocoons, and in the same year Mr Ross asked for the employment of some Japanese silk workers and seed from Japan was also imported. In 1876 he left for England for six months. In spite of his instructions, there was mismanagement. The industry after this temporary setback, continued to prosper and, in 1879 the experiment was officially pronounced a success. However, the industry would not flourish under government management, although efforts were made to popularise it in the villages. The output between the years 1898 and 1901 was poor.

In 1898 and 1899 sericulture was introduced in Jaunsar Bawar by the divisional forest officer. This effort also failed. The sericulture industry has also been revived by the government after Independence and now stands on a sound economic footing.

The other old-time industries of the district are the production of jaggery and of oil from oil-seeds, manufacture of leather, pottery, handloom cloth, metal ware etc.

After 1930, a number of industries of various magnitude have been established in the district. In 1951, 1960 and 1971, the number of registered units was 40, 45 and 358 respectively. At present the district is one of the more prosperous industrial areas of the State, being gifted not only with village and cottage industries and small-scale industries, but with a number of large-scale and heavy industries too.

Power

Electricity is made available to the district from the U.P. grid. Total consumption of power in the district was 16,08,53,704 units in 1970-71. The industrial establishments consumed 55 per cent of the total consumption, while only 0.7 per cent was consumed for agricultural purposes.

Rural electrification has been a very slow process in the district as the following statement shows :

Year	No. of villages supplied with elec- tricity
1959	1
1960	Nil
1961	Nil
1962	1
1963	16
1964	11
1965	9
1966	8
1967	Nil
1968	Nil
1969	15
1970	21
Total	82

There are 761 villages in the district.

Heavy Industries

The Indian Drugs and Pharmaceuticals, Ltd, an undertaking of the Government of India manufacturing antibiotics was established at Virbhadra, near Rishikesh in 1962 with Soviet collaboration, which employs 218 persons.

The other heavy industry of the private sector of the district is also situated at Rishikesh. The Sturdia Chemicals, Ltd, was established in July, 1963. It had a total investment of Rs 1,04,00,000 in 1972. Calcium carbonate is manufactured in the unit and the value of production was Rs 1,22,00,000 in 1972. Raw materials used for the manufacture of calcium carbonate are stearic acid, limestone and burnt lime. The industry is equipped with modern machines and employs some 214 persons.

Large-scale Industries

Woollen and synthetic tops, woollen cloth, sugar, cotton-yarn, wheat products, medicines and miniature bulbs are manufactured in seven large-scale units. More than Rs 10,00,000 is invested in each unit and each employs more than 50 persons.

Sri Janki Sugar Mills Co., Ltd—The factory was established at Doiwala in 1950. It had a total investment of Rs 18,88,000 in 1972, when sugar worth Rs 2,55,00,000 was produced consuming sugar-cane worth Rs 1,80,55,000. As many as 928 persons were employed in 1972.

Amitabh Textile Mills, Ltd—It was established in Premnagar, Dehra Dun in 1960. Its total investment was Rs 1,52,00,000 in 1972. Cotton-yarn is produced in this factory and the value of production in 1972 was Rs 1,92,00,000. Cotton worth Rs 1,37,48,000 was consumed in the same period, when the industry employed 963 persons.

Miniature Bulb Industries of India, Ltd—This unit was established in 1958 at Dehra Dun. It had a total investment of Rs 20,00,000 in 1972, when miniature bulbs worth Rs 45,00,000 were produced. The industry employed 450 persons.

Bengal Immunity, Ltd—Medicines for the cure of diphtheria, anti-tetanus and anti-toxic injections are produced in this unit, which was established at Harrawala in 1969. About Rs 22,00,000 was invested in the unit, in 1972, when medicines worth Rs 68,90,000 were produced. About 60 persons were employed in the concern.

Doon Valley Combers (P) Ltd—Woollen and synthetic tops are produced in the factory, which was established in 1962, at Dehra Dun. Its total investment was Rs 71,47,000 and its production worth Rs 84,48,000 in 1972, when 275 persons manned this industry. Woollen and synthetic tops are manufactured from wool and synthetic fibres.

India Woollen Textile Mills (P) Ltd—The unit was established at Shwala in Dehra Dun cantonment in 1966. Woollen grey cloth worth an amount of Rs 28,00,000 was produced in 1972.

Raj Narain Flour Mills—Wheat flour, *maida* and soojee are produced in the factory, which was established at Dehra Dun in 1964. The total investment of the unit was Rs 15,00,000 in 1972, when wheat flour, *maida*, and soojee worth an amount of Rs 2,95,50,000 were produced consuming wheat worth Rs 2,52,00,000. The concern provided employment to 50 persons in 1972.

Small-scale Industries

A variety of items are produced in small-scale units, which are mainly located at Dehra Dun, Mussoorie, Doiwala, Dhalwala, Kuwala, Niranjanpur, Rishikesh, Harrawala and Vikasnagar. In each unit less than 50 persons are employed and the investment per unit is less than Rs 10,00,000.

Dairy Products—Cheese, butter, and milk are produced in four units at Mussoorie and Dehra Dun. The Industry was established in 1962, and its total investment was Rs 1,20,000 in 1972 when cheese,

butter and milk worth an amount of Rs 2,80,000 were produced, consuming milk worth Rs 1,40,000. Only 18 persons are employed in the trade.

Canning and Preservation—Three units at Dehra Dun produce sauces, jams and jellies and the products are canned and preserved. The industry was opened in 1949 and its total investment was Rs 1,15,000 in 1972, when sauces, jams and jellies worth an amount of Rs 1,65,000 were produced consuming fruits and vegetables worth Rs 55,000. The trade employs 12 persons.

Bakery Products—Bread, cakes and biscuits are produced in 20 units, which are situated at Premnagar and Rest Camp in Dehra Dun town and at Mussoorie. About Rs 2,75,000 was invested in the trade in 1972, when bakery products worth an amount of Rs 6,00,000 were produced consuming *maida* and soojee worth Rs 2,00,000. As many as 80 persons are employed in the trade.

Chocolate—Chocolate is produced in one unit at Dehra Dun which was established in 1947. About Rs 35,000 was invested in the unit in 1972, when chocolate worth Rs 24,000 was produced consuming milk and sugar worth Rs 8,000. The industry employs three persons.

Khandsari—*Khandsari* is manufactured in three units at Dehra Dun and Doiwala, which were established during the period 1961 to 1964. About Rs 1,30,000 was invested in the industry in 1972, when *khandsari* worth an amount of Rs 1,50,000 was produced consuming sugar-cane worth Rs 55,000. Each unit employs seven persons.

Tea—This is an old industry of the district. It is confined to 10 estates at Dehra Dun, Harrawala, Niranjanpur and Vikasnagar. The total investment in the estates and in the trade was Rs 40,00,000 in 1972, when tea worth an amount of Rs 22,00,000 was produced using green tea leaves worth Rs 4,00,000. As many as 470 persons are employed in the production of tea.

Malt—Malt is produced in one unit at Subhasnagar in Dehra Dun town. The unit was established in 1961. It had a total investment of Rs 5,00,000 in 1972 when malt and cornflakes worth Rs 18,80,000 were produced, consuming fruits and grains worth Rs 6,00,000. The trade provides employment to 39 persons.

Textiles—The industry was established at Dehra Dun and Premnagar in the period 1954 to 1962. Silk and cotton cloth are produced in six units, which had a total investment of Rs 10,90,000 in 1972. The value of production in the same year was Rs 9,50,000 using silk and cotton-yarn worth Rs 3,50,000. The trade employs 93 persons.

Cardboard Boxes—Cardboard boxes are produced in one unit at Dehra Dun, which had a total investment of Rs 69,000 in 1972. Cardboard boxes worth Rs 45,000 were produced, consuming paper worth Rs 15,000 in 1972. The unit is manned by six persons.

Printing—As many as 10 units print paper at Mussoorie, Dehra Dun and Rishikesh. The industry was first established at Dehra Dun in 1936 and by 1972 all the 10 units had come to exist. The total investment in the trade was Rs 6,25,000 in 1972 when job-work worth Rs 5,95,000 was carried out. About 60 persons are employed in the trade.

Timber Goods—In the period 1957 to 1972 as many as 60 units were established at Dehra Dun, Mussoorie and Rishikesh to manufacture toys, sticks, battery separators, packing boxes and planks of timber. About Rs 16,25,000 was invested in the trade in 1972 when goods worth an amount of Rs 28,15,000 were produced consuming timber worth Rs 10,35,000. The trade provides employment to 300 persons.

Steel Furniture—These items are manufactured in six units, which are located at Dehra Dun and Mussoorie. About Rs 90,000 was invested in the industry in 1972, when furniture worth an amount of Rs 2,25,000 was produced utilising steel worth Rs 90,000. The trade is manned by 25 persons.

Liquor—Wine and beer are produced in one unit at Dehra Dun. About Rs 17,00,000 was invested in the industry in 1972, when wine and beer worth Rs 1,27,000 were produced consuming molasses and barley worth Rs 40,000. The trade is manned by 40 persons.

Ayurvedic Medicines—Ayurvedic medicines are manufactured in eight units which are situated at Dehra Dun and Rishikesh. The first unit was established in 1901 and by 1972 all the eight units had come into existence. About Rs 23,00,000 was invested in the trade in 1972, when Ayurvedic medicines worth Rs 15,25,000 were produced consuming herbs, sugar, etc., worth Rs 5,50,000. About 70 persons are employed in the industry.

Rosin and Turpentine—Four units, which are situated at Rishikesh, produce Rosin and turpentine from resin. The industry has grown between the years 1960 and 1967. About Rs 6,50,000 was invested in it in 1972, when rosin and turpentine worth Rs 20,20,000 were produced, utilising resin worth Rs 7,00,000. Resin is imported from the forests of the district and Tehri Garhwal. The industry employs 45 persons.

Tubes, etc.—Tubes (for conveying liquids and gases) and adhesives are manufactured from rubber in two units at Dehra Dun. The industry was established between 1963 and 1969. The total investment of the industry was Rs 75,000 in 1972 when tubes and adhesives worth an amount of Rs 85,000 were produced consuming synthetic rubber and chemicals worth Rs 28,000. Twelve persons are employed in the trade.

Leather Products—Bags, attache-cases and shoes of leather are produced in 215 units at Dehra Dun and Rishikesh. The industry was established around 1936. About Rs 1,50,000 was invested in the trade in 1972 when articles worth an amount of Rs 3,50,000 were produced. The trade is manned by 45 persons.

Musical Instruments—About Rs 50,000 was invested in one unit in 1972 at Dehra Dun which manufactures musical instruments. Instruments worth an amount of Rs 36,000 were produced in 1972, consuming timber, metal wires and leather worth Rs 12,000. The unit employs 6 persons.

Optical Lenses—Five units, which are situated at Dehra Dun, manufacture optical lenses. The industry has grown between the years 1939 and 1969. About Rs 3,00,000 was invested in the trade in 1972, when optical lenses worth Rs 3,00,000 were produced utilising optical glass worth Rs 1,00,000. Eighteen persons are employed in the trade.

Miniature Bulbs—Miniature bulbs are manufactured in 50 units located at Dehra Dun. About Rs 20,00,000 was invested in the industry in 1972, when miniature bulbs worth an amount of Rs 24,00,000 were produced consuming glass and wire worth Rs 8,00,000. The industry employs 600 persons.

Medical Instruments—Thermometers, syringes, etc., are produced in nine units which are located at Dehra Dun and Mussoorie. The total investment in the trade was Rs 19,00,000 in 1972 when instruments worth Rs 15,00,000 were produced consuming glass, mercury, etc., worth Rs 5,00,000. About 150 persons are employed in the industry.

Automobile Industry—This industry has grown since 1947 and at present there are 20 units, of which, three units are only repair shops, employing 80 persons. It is situated at Dehra Dun. Rishikesh and Doiwala. About Rs 20,00,000 was invested in the trade in 1972, when job-work worth Rs 16,00,000 was executed.

Agricultural Implements—Chaff-cutters, ploughs and barbed wires are produced in 10 units, which are located at Dehra Dun and Doiwala. About Rs 12,00,000 was invested in the trade in 1972, when implements worth an amount of Rs 38,00,000 were produced. The industry employs 105 persons.

Utensils and Hospital Equipment—Two units, which were established at Dehra Dun between 1959 and 1968 manufacture steel utensils and hospital equipment. The total investment in the trade was Rs 75,000 in 1970 when utensils and hospital equipment worth an amount of Rs 70,000 were manufactured. Each unit employs five persons.

Weigh-bridges—One unit, situated at Dehra Dun manufactures weigh-bridges. It was established in 1958, and its total investment was Rs 1,60,000 in 1972 when weigh-bridges worth Rs 3,00,000 were produced. The unit is manend by 13 persons.

Sewing Machines—Sewing machines and machine-parts are manufactured in five units at Dehra Dun. The trade has grown since 1986. The total investment in the industry was Rs 4,50,000 in 1970, when

sewing machines and machine-parts worth an amount of Rs 2,12,000 were produced consuming cast iron and steel worth Rs 1,00,000. As many as 45 persons are engaged in the trade.

Metal Goods—*Khukries* (Nepali daggers), steel boxes and shutters, buckets and nails, caps for bulbs are manufactured in 12 units which are situated at Dehra Dun and Doiwala. About Rs 2,00,000 was invested in the trade in 1972, when goods worth an amount of Rs 3,00,000 were produced, consuming iron and steel sheets worth Rs 1,00,000. As many as 45 persons are employed in the industry.

Plaster of Paris—Plaster of Paris and lime are manufactured from gypsum and limestone in 158 units situated at Dehra Dun and Rishikesh. The industry has grown since 1939. About Rs 18,20,000 was invested in the industry in 1972 when lime and plaster of Paris worth Rs 85,50,000 were produced. About 1,500 persons are employed in the trade.

Other Industries—Plastic goods, candles, rice, wheat flour, and ice-cream are manufactured in 20 units, which are located at Dehra Dun, Doiwala and Rishikesh. The total investment in these industries was Rs 24,00,000 in 1972, when goods worth Rs 15,00,000 were produced, consuming raw materials worth Rs 5,00,000. These trades employed 105 persons.

Cottage and Village Industries

In the rural areas of the district, a number of cottage and village industries flourish, and employ a large number of persons. In 1972, as many as 1,500 persons were employed in the spinning of wool alone. This industry provides employment to the largest number of persons, whereas in the production of baskets only 45 persons were employed. Of these industries the power-loom industry is the most capital-intensive of all the cottage and village industries in the district. On the other hand investment in sericulture and apiary industries is low. An account of these industries in the district follows.

Wool Industry—The spinning and weaving of wool was confined to the Jaunsar Bawar area in the past. However, with the influx of Tibetans since 1962, the industry has spread to Clement town, Rajpur and Dehra Dun, where a large number of Tibetans reside.

Spinning of wool is carried out in 160 units, which had a total investment of Rs 30,000 in 1972. Woollen yarn worth an amount of Rs 10,00,000 was produced in the same year consuming wool worth Rs 4,00,000. Eight to ten persons are employed in each unit. The majority of the people still practise old methods and the *takkii* (device for spinning wool) is still in vogue.

Weaving of woollen cloth, carpets, blankets and rugs is confined to 84 units which had a total investment of Rs 1,68,000 in 1972. Each unit is manned by two to three persons. The total production was of the order of Rs 6,15,000 in 1972. Weaving of woollen cloth and garments is still in a primitive stage. Generally production equals the

demand of the family of the weaver or a few families in the village. Only rarely the woollen garments, carpets, blankets and cloth find their way to the market. *Koltas* who were once proud weavers, appear to be slowly drifting away.

Handloom Cloth—Handloom cloth is mainly produced in Doiwala development block by Harijans. About Rs 1,60,000 was invested in the industry in 1972, when handloom cloth (*garha*) worth an amount of Rs 4,55,000 was produced consuming cotton-yarn worth Rs 2,95,000. As many as 15 units are engaged in the industry and each unit employs seven to eight persons.

This industry is also facing economic difficulties and the weavers have oft-times to depend on other occupations for earning their bread.

Power-looms—Cloth for making bed covers, shirts and saris are produced in six units which are operated by electricity. About Rs 25,00,000 were invested in the trade in 1972, when silk and cotton cloth worth Rs 15,00,000 was produced, consuming silk-yarn and cotton-yarn worth Rs 5,50,000. It employed 115 persons.

Durries—Durries are manufactured in 10 units in Dehra Dun tahsil. About Rs 1,500 was invested in the trade in 1970. Each unit is manned by 8 persons. Durries worth an amount of Rs 7,000 were produced in 1970, consuming cotton-yarn and dyes worth Rs 1,500. Weavers of durries are part-time workers and have to depend on other jobs also for their livelihood.

Tailoring—About 180 tailors, employed in 90 units produced garments worth Rs 2,50,000 in 1972.

Oil—Oil is extracted from mustard seeds in 268 units which had a total investment of Rs 2,60,000 in 1972, when oil worth an amount of Rs 9,00,000 was produced consuming oil-seeds worth Rs 8,60,000. The industry is scattered all over the district. As many as 900 persons are employed in the trade.

Jaggery—Jaggery is produced in 10 units, which had a total investment of Rs 1,20,000 in 1972. Jaggery worth an amount of Rs 2,95,000 was produced in the same period consuming sugar-cane and fuel worth Rs 90,000. The industry is confined to tahsil Dehra Dun.

Rice—Rice from paddy is produced in 26 units, with a total investment of Rs 6,00,000 in 1972. The paddy is subjected to hand-pounding and machine-pounding and its bran is separated. The hand-pounded variety of rice, though not polished, is quite popular. Rice worth Rs 17,07,000 was produced in 1972, consuming paddy worth Rs 11,00,000. Each unit is manned by three to four persons.

Aplary—Honey is produced by 150 families. Honey worth an amount of Rs 12,000 was produced in 1972.

Baskets, Cots and Mats—Baskets are manufactured in 25 units which had a total investment of Rs 10,000 in 1972. Baskets worth Rs 64,000 were produced in 1972, consuming bamboos and *ringal* worth Rs 21,000. Each unit employs one to two persons.

Cots worth an amount of Rs 2,50,000 were constructed in 90 units in 1972. Each unit is manned by two persons.

Mats of *ringal* are produced in 15 units situated in tahsil Chakrata. With an investment of about Rs 6,000, mats worth Rs 60,000 were produced in 1972, consuming *ringal* worth Rs 20,000. Each unit is manned by three persons.

Mats are also produced in the district jail. In 1970, mats worth an amount of Rs 4,000 were produced.

Stick Making—Sticks of timber and cane were produced in 15 units. With a total investment of Rs 15,000, sticks worth Rs 25,000 were produced in 1970, consuming timber and cane worth Rs 7,500. The industry employs 30 persons.

Pottery—Pottery is manufactured in 37 units, which had a total investment of Rs 14,000 in 1972. Pottery worth Rs 91,000 was produced in 1972. Each unit employs one to two persons.

Brick-kilns—About Rs 15,00,000 were invested in 20 brick-kilns in the district in 1972, when bricks worth an amount of Rs 30,00,000 were produced. About 1,200 persons are employed in this trade.

Smithy—Articles required by the rural people such as iron utensils, axes and sickles are manufactured in 80 units which had a total investment of Rs 52,000 in 1972. Apart from production, job-work is also undertaken by village blacksmiths. In 1972, the total value of the production of axes, utensils and sickles, and of job-work was estimated to be around Rs 2,40,000 in value. There are 160 blacksmiths in the district.

Leather—Leather is tanned in 30 units which had a total investment of Rs 40,000 in 1972. Tanned leather worth an amount of Rs 1,10,000 was produced, utilising hides worth Rs 40,000 in 1972. Each unit is manned by two to three persons. There are 50 cobblers in the district who produced shoes and bags worth Rs 1,08,000 in 1972.

Aid to Industries

Financial assistance to industries is provided through government, State Bank of India and by the U.P. Financial Corporation, Kanpur. In district Dehra Dun, during the year 1969-70, following assistance was provided to industrial units :

Agency	No. of units assisted	Amount disbursed (in Rs)
State Bank of India	102	81,76,000
U.P. Financial Corporation, Ltd, Kanpur	5	1,81,000
Directorate of Industries, Uttar Pradesh, Kanpur	1	1,000
Total	108	83,58,000

Production-cum-Extension Centre

The centre was established at Vikasnagar in 1960. Training in smithy and carpentry and to electricians and mechanics is imparted at the centre. Each trainee is given a stipend of Rs 20 per month. Mechanics are trained for two years and others for one year. During the years 1960-70, as many as 35 persons were trained as mechanics, 67 as electricians, 21 in smithy and 28 in carpentry. The staff of the centre comprises one foreman, five instructors, one store-keeper and four others. There is also a hostel for trainees.

Industrial Estates

The government rural industrial estate was established at Vikasnagar in 1965. However, this estate had not yet attracted any rural industries till 1972, when fertilisers were stored here by the agriculture department of the State Government.

The government industrial estate at Dehra Dun was established in 1966 on Saharanpur road. There are 13 units in the estate, which produced drawing and survey instruments, steel furniture, bulbs, ammunition for guns, rain gauges, labels and paintings, knives and daggers, producing goods worth Rs 10,00,000 in 1973. As many as 150 persons are employed in these industries.

Sericulture Scheme

The sericulture scheme was revived and a new scheme introduced in Uttar Pradesh in 1947 with the establishment of the Government Central Silk Farm with its headquarters at Premnagar under an additional director of industries. A laboratory and a training centre have also been opened at Premnagar. The laboratory undertakes research work pertaining to different aspects of sericulture. More than 2,000 persons have been trained in sericulture and the majority of them belong to district Dehra Dun. Experimental farms of mulberry trees have been laid out in five different places in the district. Silkworms, when 10 days old, are brought to Premnagar and handed over to the rearers. A seed unit provides silkworm seed (layings). The silkworms develop into cocoons, which provide the basic raw material for the production of silk. Cocoons worth Rs 94,000 were produced in 1956, while for 1970-71 the corresponding figure was Rs 2,93,000. In 1970-71 the Government Central Silk Farm at Premnagar distributed 43,850 healthy mulberry trees to the silkworm rearers in the district, thus ensuring the rearing of only healthy silkworms.

In 1973 as many as 1,500 agricultural families belonging to 143 villages of the district were engaged in the industry. Each family working for 35 to 40 days in a year earned Rs 350 to Rs 400. In 1972-73 the U.P. Government established 5 State mulberry farms covering 17.93 hectares. The total area of the State farms in the district was 101 hectares in 1973.

Raw silk is produced at the co-operative silk filature at Premnagar. Raw silk weighing 4,192 kg. and 4,841 kg., was produced in 1971-72 and 1972-73 respectively. The other achievements of the sericulture industry in the district were as follows :

	1971-72	1972-73
Number of mulberry plants planted	52,482	66,500
Number of silkworm seed (layings) produced	5,61,913	6,12,709
Cocoon production	33,481 kg.	46,395 kg.

Industrial Expansion

A number of industries can be established in the district on account of the existence of favourable conditions. Limestone is found in many parts, existing in beds of varying thickness near Mussoorie, Dehra Dun, Doiwala and Rishikesh. Cement and calcium carbide can be manufactured from limestone.

Timber, which is available in plenty in the forests of the district can be used for the establishment of match-box industry, plywood industry and furniture units. Most of the timber is exported to Saharanpur and other districts. Dust from sawn-timber is used as fuel. This dust, which is derived in a large quantity can be profitably used in the manufacture of hardboard.

Activated carbon, in great demand from industries like vegetable oils, glycerine, etc., can be produced from husk of rice, which is the chief raw material and is plentifully available in the district. Currently most of it goes waste.

Cold storages can be established at Dehra Dun and Rishikesh. Many fruits and vegetables including potatoes are grown in the district in plenty and a fair portion of these perish in the warm weather in the absence of cold storages.

Gypsum is also found in the hills of the district. Plaster of Paris can be manufactured from gypsum. At present gypsum bandages are imported. In the light of the ever increasing demand for it, its manufacture at Dehra Dun can be a profitable enterprise.

The district is rich in herbs, which can form the backbone of the production of Ayurvedic medicines. Most of the herbs available are exported to other districts, and a fair proportion of them remains untapped.

CHAPTER VI

BANKING, TRADE AND COMMERCE

BANKING AND FINANCE

History of Banking—Dehra Dun has been an important centre of trade for decades as it was connected by road with Himachal Pradesh, Punjab, Delhi, Moradabad, Lucknow, Tehri Garhwal, and Garhwal and the town itself was a clearing house for goods exported to the hill areas of the district and beyond and also for those imported from these areas.

In the fifth and sixth centuries B.C. wealth was hoarded as a crude method of creating savings. Even in those days money-lending occasionally meant usury, which was considered an antisocial act. In the seventeenth and eighteenth centuries the money-lenders and moneyed traders who were known as *jagat seths* (world bankers), were very prosperous. The gradual progress of British trade in the nineteenth century saw the beginning of the decline of indigenous banking. There was growing need for institutions which could provide credit facilities. The government established its own treasuries in the district. The expanding trade with England attracted foreign bankers and new banks were established which mostly financed foreign trade, and did not serve the requirements of the local inhabitants and their economy. Three British banks were established at Mussoorie after the construction of the railway in the 1900. Subsequently these banks were closed. The banks were the Delhi and London, the Alliance Bank of Simla, and the Bank of Upper India. The local bankers did not rise to the changing times and did not accept deposits, their utility as banking agents being limited to money-lending. Bhagwan Das of Delhi established an office at Mussoorie in the first decade of this century and for many years he was the leading banker. The rates of interest varied from 12 per cent per annum to 37.50 per cent per annum; depending on the security offered. In a few cases the rate of interest was as high as 75 per cent per annum.

Allahabad Bank opened its first branch in 1865, Punjab and Sindh Bank and the Bank of Baroda both in 1908, and the State Bank and the Central Bank of India both in 1911, all at Dehra Dun.

A large number of branches of commercial banks were opened in the district thereafter. In 1972 there were 44 branches of commercial banks functioning in the district.

Rural Indebtedness—About the beginning of this century the economic condition of different sections of the people varied considerably. The means of communication improved slowly under British rule. The laying of the railway tract in 1900 did increase the pace of trade and economic activities. People could go in search of jobs to the urban centres in the plains in the south, and food-grains could be

imported without difficulty from prosperous districts of western Uttar Pradesh. However, the majority of the agriculturists remained indebted and tied to their lands and only a few, who had larger holdings, were free from debt.

In the wake of the First World War (1914-1918), a large body of cultivators benefited from the rise in prices of the agricultural produce. Many had also joined the army and this had improved the economic condition of their families. The economic depression prevailing of 1929-1936, however, had its impact on the agriculturists of this district too. The prices of agricultural produce decreased considerably and consequently the income of the agriculturists declined while their indebtedness increased. Loans borrowed for agriculture were diverted to unproductive items such as litigation, marriages, etc. The rate of interest was sometimes as high as 50 per cent per annum and this added to the difficulties of the farmers. Many could not pay the interest and if the loan was substantial the land of the cultivator passed into the hands of money-lender within a few years. Poverty was widespread among the people living in the hills and those in the Doon valley were only a shade better.

The considerable increase in the prices of agricultural produce since the beginning of the Second World War gave a good monetary return to the agriculturists, although the receipts were substantially set off by the high prices which had to be paid by them for essential consumer goods.

In a survey made in 1961 of the village Chapnu, situated at a distance of about 30 km. to the south of Chakrata and about 60 km. to the north of Dehra Dun, it was ascertained that 80 to 100 per cent of the households were in debt. The indebtedness increased as the income decreased. Each household with an income of Rs 101 per month or over was indebted to the extent of Rs 295.00. On the other hand, a household with an income between Rs 25 and Rs 50 was indebted to the extent of Rs 700. The debts were incurred for unproductive purposes indicating the fact that the local population was not able to make both ends meet.

Debt-relief Legislation

Attempts have been made since the first quarter of this century to find a remedy for rural indebtedness mainly through legislative measures seeking to regulate the terms and conditions of money-lending.

The Usurious Loans Act 1918, the United Provinces Agriculturists' Relief Act 1934, the Temporary Postponement of Execution of Decrees Act 1937, and the United Provinces Debt Redemption Act 1940 provided relief to debtors by scaling down the rates of interest and protecting their properties from liquidation. However, these measures benefited only the educated few and some unscrupulous money-lenders have continued to advance loans at high rates of interest to the poor and ignorant.

Role of Private Money-lenders and Financiers

In the past the custom in Jaunsar Bawar was that the debtor had to give 7 kg. corn at each harvest for every rupee borrowed until the original sum was paid up. The rate of interest for grain loans was as high as 50 per cent compound interest and if the debtor could not pay that much and became insolvent, the creditor accepted either only the original amount or took double the principle in cash.

In the rural areas, traders and professional money-lenders advance loans, the rates of interest varying from 25 to 37.50 per cent per annum. In Jaunsar Bawar, if a *kolla* borrows Rs 100, he must work for the money-lender for a week in one month without wages and pay back the amount of Rs 100 after two months, failing which the money-lender charges interest at the rate of 25 per cent per annum. The professional money-lenders of this region are known as *sayanas* and they are 12 in number.

In Dehra Dun tahsil, agents of two money-lending firms advance loans under the *ugahi* system. They recover Rs 12 for every Rs 10 advanced, the debtor paying Re 1 each month clearing the debt in 12 months. The Punjabis and other money-lenders operate in the urban areas and advance loans to clerks and labourers, the rates of interest varying from 10 to 20 per cent per annum.

Government Loans

Monetary help is extended by government to agriculturists in times of distress, flood, famine and other calamities.

The policy of helping agriculturists in distress by suitable provision of funds continues to be followed. Out of these loans, the farmers can buy implements, seed and fertilizers. The loans are advanced generally against security of immovable property.

The amounts of loans advanced in the Second and Third Five-year Plans and in 1970-71 were as given below :

Period when the loans were advanced	Amount (in Rs)	Rate of interest (per cent per annum)
Second Five-year Plan	1,12,992	5.50 to 8.50
Third Five-year Plan	9,62,212	5.50 to 8.50
1970-71	4,06,865	6

Co-operative Movement

The movement was introduced in the district in 1930, when 62 primary agricultural co-operative societies were formed. There were 133 such societies in 1940, which increased to 358 in 1950. In 1960 a

scheme was introduced under which the co-operative societies were re-organised and the smaller ones were reconstituted to form bigger multi-purpose societies. There were 269 co-operative societies in 1960 but the number was reduced to 108 in 1970 after reconstitution.

The membership of these co-operative societies rose from 8,098 in 1950, to 15,000 in 1960, and to 25,941 in 1970.

Advances to agriculturists rose similarly from Rs 3,27,690 in 1950 to Rs 16,88,196 in 1960, and Rs 38,07,000 in 1970. The rates of interest were between 8.25 and 9.50 per cent per annum in 1950, 8.75 per cent in 1960 and 10 per cent in 1970.

Co-operative Bank—The district Co-operative Bank, Ltd, Dehra Dun was established in 1924. Its branches were opened at Vikasnagar, Doiwala, Rishikesh and Chakrata in 1963, 1966, 1968 and 1969 respectively. The following statement gives in rupees the capital investment of the bank on June 30, 1971 :



Share capital	18,20,200.00
Reserve fund	3,05,286.18
Building fund	97,480.21
Depreciation fund	28,244.14
Divident equalisation	1,828.00
Charity fund	3,686.92
Bad debts	1,51,176.88

The bank has been financing the co-operative movement in the district. It advanced Rs 68,94,380 at 5.50 to 6.25 per cent per annum interest in 1960. It also earned a profit of Rs 47,612 in the same year. The bank is making steady progress and in 1970 it advanced Rs 1,76,01,449.60 at rates of interest varying between 6.25 and 9 per cent per annum, and earned a profit of Rs 1,02,980.61.

The U.P. State Co-operative Land Development Bank, Ltd, established a branch at Dehra Dun in 1960-61. It advanced loans to agriculturists for buying agricultural implements, irrigation machinery and tractors. The bank had advanced a total amount of Rs 15,82,665 to 427 agriculturists in the district till June 6, 1971. However, Rs 11,26,005 were outstanding on the same date. During 1970-71 the bank advanced Rs 4,52,000 to 137 agriculturists.

Other Co-operatives—The District Co-operative Federation, Ltd, was established at Dehra Dun in 1948, in order to promote the marketing of agricultural produce, distribution of consumer goods, and agricultural development. It bought food-grains and forest products

and ensured reasonable prices to farmers. The working capital of the federation was Rs 1,02,490.79 in 1970-71 when it dealt with the distribution of food-grains, forest products, agricultural implements, fertilisers, sugar, coal, cement, kerosene, tin sheets and salt. At present it deals in sugar and other commodities. The value of total sales amounted to Rs 41,67,399.34 in 1960, when the federation earned a profit of Rs 45,074.21. The total sales amounted to Rs 33,88,431.56 in 1970 and the profit earned was Rs 6,330.95.

The Dun Co-operative Store, Ltd, was established at Dehra Dun in 1963. It supplied consumer goods, and articles worth Rs 4,20,425 in 1963-64, earning a profit of Rs 2,355. In 1969-70 the sales amounted to Rs 4,92,093, but the store incurred a loss of Rs 39,022. The store also supplied consumer goods to 35 primary consumers stores.

The following statement gives the number of other co-operative societies in the district in 1971 :

Nature/Name	Number
Salary earners' credit societies	54
Joint co-operative farming societies	15
Collective farming societies	2
Co-operative milk union, Dehra Dun	1
Primary co-operative milk producers' societies	54
Poultry societies	4
Labour control societies	8
Co-operative transport societies	6
Co-operative housing societies	24
Herb collecting societies	2
Chuna Bhatta societies	2
Housing co-operative societies	12
Harijan welfare co-operative societies	9

Commercial Banks

There are 12 commercial banks operating through 44 branches in the district, the oldest being the Allahabad Bank. The other banks are State Bank of India, New Bank of India Ltd, Bank of India, Central Bank of India, Oriental Bank of Commerce Ltd, Punjab National Bank, Punjab and Sind Bank Ltd, Bank of Baroda, United Commercial Bank, Laxmi Commercial Bank, and the Union Bank of India. The State Bank of India advances loans on 7 to 10.50 per cent interest per annum and pays interest varying from 3.50 to 6.50 per cent per annum on deposits. The other banks allow 3.50 to 6.50 per cent of interest on deposits and

charge 8 to 9.50 per cent per annum on advances. The State Bank of India and the other banks are now advancing loans to farmers in the rural areas with a view to encourage the establishment of industries and to develop agriculture.

The following statement shows the trends in business of the various commercial banks in district Dehra Dun as on December 31, of the year :

(Amount in lakhs of Rs)

Bank	Deposits		Advances	
	1967	1970	1967	1970
State Bank of India	497.75	666.40	166.07	224.04
Punjab National Bank	333.34	502.77	42.86	126.97
Central Bank of India	164.00	246.32	13.55	26.09
Union Bank of India	59.63	165.73	16.11	50.29
Allahabad Bank	255.99	326.11	27.16	30.00
United Commercial Bank	98.89	124.37	3.61	3.88
Bank of Baroda	11.00	36.76	0.62	11.27
Bank of India	42.90	67.50	—	11.00
The Oriental Bank of Commerce, Ltd	136.42	155.93	33.73	25.12
The New Bank of India, Ltd	—	15.28	—	3.42
The Punjab and Sind Bank, Ltd	41.88	72.42	37.02	87.65
The Laxmi Commercial Bank Ltd	47.17	52.10	7.13	9.82
Total	1,658.47	2,431.69	347.41	609.05

National Savings Organisation

The post-office savings bank scheme has been in operation in the district since the last decade of the nineteenth century. The several new small savings schemes have been formulated after Independence to tap the savings of those who generally do not subscribe to government loans and to inculcate the habit of thrift in the people, as well as to make funds available to government for investment in development schemes.

The following statement gives the investments in different securities as on December 31, 1970 :

Security	Value (in Rupees)
National saving certificates	1,20,71,300
Post-office savings bank	11,70,299
Post-office time deposits	7,38,400
Cumulative time deposits	4,58,045

Life Insurance

Several life and general insurance companies functioned in the district since the beginning of the twentieth century. Consequently upon nationalisation in September 1956, a branch of the Life Insurance Corporation of India was established at Dehra Dun. The progress of life insurance business in the district during the five years beginning from 1966-67 is given below :

Year	No. of persons assured	Business procured (in Rupees)
1966-67	4,074	2,54,85,750
1967-68	4,175	2,91,85,750
1968-69	2,529	3,06,86,250
1969-70	2,482	8,14,24,750
1970-71	5,003	4,44,87,750

General Insurance—The Life Insurance Corporation of India took over general insurance from private companies on April 1, 1964. The general insurance business is divided into four categories, i.e., fire, marine, motor and miscellaneous. The following statement gives the general insurance business procured by the Life Insurance Corporation of India in the last two years :

Year	Fire		Marine		Motor		Miscellaneous	
	No. of cases	Premium income (in Rs)	No. of cases	Premium income (in Rs)	No. of cases	Premium income (in Rs)	No. of cases	Premium income (in Rs)
1969-70	81	21,041	10	—	72	42,455	698	11,542
1970-71	210	12,899	16	—	182	18,986	793	11,881

Currency and Coinage

In the ancient period coins were issued by merchants, guilds, corporations and governments. The coins were of gold, silver and copper. The weight of the earliest coins was based on the system laid down in the Manu-Samhita.

In the medieval period the chief silver coin was the rupee of 172.5 grains and the copper coin—dam. Forty dams made a rupee. The British issued their own currency, and their rupee was further divided

into 16 annas, an anna into four paise each equal to three pies. The metric system of currency and coinage was introduced from October 1, 1955.

TRADE AND COMMERCE

The trade of the district has always followed two main channels : one, between the valley and the plains, and the other, between the valley and the hills, the former exporting to the plains principally timber, bamboo, lime, charcoal, catechu, fine rice (*bansmati*), potatoes, tea, *munj* and *babar* grass, and importing hardware of all sorts, cotton cloth, blankets, salt, sugar, food-grains, tobacco, dried fruits, spices and sheep. The latter exported coarse blankets (*lohi*), rice, ginger, turmeric, red pepper, *ringal*, pens, fishing rods, walnuts, apricots, honey, wax, lac, gum, resin, timber and potatoes to the valley and thence to the plains and imported all the articles received from the valley and outside the district.

Lime was the chief export of the district. With the construction of the railway up to Dehra Dun in 1900 the trade of the district gained momentum and there was considerable increase in the volume of trade. In 1908 about 4,57,000 maunds of stone and lime were exported from the district via the railway.

This also facilitated the movement of the famous Dehra Dun rice to distant places, and on the average about 10,000 quintals of rice was exported every year in the first two decades of this century, there being a great demand for the commodity in the distant markets of Calcutta, Madras, Bombay and Kanpur. Ginger, turmeric, and pepper were also exported to different parts of India. In the beginning of the twentieth century, Ayurvedic medicines started being exported to Calcutta, Varanasi and Bombay. In the fifties and sixties of this century this trade increased considerably.

Exports and Imports

The construction and development of roads since 1947, has resulted in further increase of trade. A large percentage of goods, whether imported or exported, is now moved by trucks. Wheat, gram, barley, maize, jowar, *bajra*, peas, pulses and jaggery are the chief agricultural imports of the district. Rice, an important item of export, is also imported, but in smaller quantities. Kerosene, general merchandise, and raw materials for various industries are the non-agricultural items of import.

Exports—The following statement gives the quantities of the chief exports from the district in 1970. The figures are only approximate :

Commodity	Quantity
Limestone	1,50,000 tonnes
Timber	10,000 tonnes
Rice	50,000 quintals

In addition medicines and calcium carbonate are exported to Delhi, Calcutta and Bombay.

Imports—The following statement gives the approximate quantities of agricultural commodities imported into the district in 1970. Wheat is generally imported from Meerut and Punjab, while other commodities are imported from Delhi and other trade centres in Uttar Pradesh.

Commodity	Quantity (in quintals)
Gram	1,00,000
Wheat	50,000
Arhar	20,000
Rice	20,000
Barley	10,000
Bajra	10,000
Maize	10,000
Moong	10,000
Jaggery	10,000
Masoor	5,000
Peas	5,000
Urd	5,000
Jowar	500

Trade Centres

The main markets in the district are located at Dehra Dun, Rishikesh and Vikasnagar. Before 1950, Chakrata was an important wholesale market for the collection and distribution of hill products. However, with the development of roads in the hilly tract of the district and the evolution of the wholesale market of Vikasnagar, hillmen now sell their commodities at Dehra Dun and Vikasnagar. In the past the hillmen of Jaunsar Bawar exchanged rice, spices, onions, potatoes, timber, herbs, fruits, honey and ghee for wheat, pulses, cloth, salt and kerosene. They have now changed over to money economy and the *Arhatias* (wholesalers) and co-operative stores market their goods on reasonable terms, thus providing a fair margin of profit for the producers.

Dehra Dun is an important market for rice, and its sales, in 1970, were worth Rs 13,87,400. The following charges are realised in this market :

Discription of charge	Rate	By whom payable
Commission	Rs 1.56 per Rs 100 of the selling price for agricultural commodities Rs 6 per Rs 100 of the selling price in the case of potatoes	Producers and buyers
<i>Dharmada</i>	8 paise per Rs 100 of the selling price	Producers and buyers
<i>Palledari</i>	17 paise to 40 paise per Rs 100 of the selling price	Buyers
Brokerage	15 paise per Rs 100 of the selling price	Producers and buyers

Articles of general merchandise, cloth and other consumer goods are also sold in the wholesale markets at Dehra Dun, Rishikesh, and Vikas-nagar. Although the market at Chakrata has thus declined, it still continues to be the main centre for marketing of *gur* (jaggery). In 1970, jaggery worth Rs 1,98,000 was sold in the markets of Chakrata and Sahiya. Mussoorie is noted for the sale of apples and potatoes. Apples worth Rs 60,000 were sold there in 1970. Doiwala is an important wholesale market for potatoes. These wholesale markets (*mandis*) feed a large number of smaller markets in the district.

Fair-price Shops—In order to arrest the steep rise in prices of food-grains as a result of the Second World War and to provide relief to the consumers, chiefly in the urban areas, the prices of a large number of commodities were controlled and rationing of some of them introduced. The main commodities being food-grains, cloth, matches, drugs, and petrol. Their dealers were licensed. Various schemes for the rationing of food-grains, chiefly wheat and its products, gram, rice, sugar and kerosene oil have, however, persisted ever since, with varying spheres of applicability and at present there are 94 shops for the purpose located at Chakrata, Dehra Dun, Doiwala, Dak Pathar, Dhalipur, Dhakrani, Kalsi, Mussoorie, Rishikesh and Sahiya.

Fairs—The biggest fairs, Jhanda and Baisakhi, are held in the months of March and April respectively, and serve as a fillip to the trade of the district. The Jhanda fair is held at Dehra Dun and Baisakhi at Rishikesh. Fruits, potatoes, spices, cloth and garments and agricultural implements are sold in these fairs. The Baisakhi fair, which is held at Rishikesh, is visited by a large number of traders from Punjab. Live-stock is also sold in this fair. The Jhanda fair, which is held at Dehra Dun attracts a large number of hillmen. They come from the hills in March and sell spices, potatoes, fruits and herbs.

Weights and Measures

In the second half of the last century and in the beginning of this century, the weights used in the urban centres and in the villages

differed widely from one another. In the towns while the pakka seer of 80 tolas was used, the villagers recognised only the kacha seer of 40 tolas.

The standard measure of capacity in Jaunsar Bawar was, as in Garhwal, the *patha*. A *patha* of wheat weighed two seers; rice about 1.75 seers. The standard used for square measures was again a *patha*; thus a *patha* of land was the area that would be sown by a *patha* of wheat. Sixteen *pathas* made one *don* and twenty *dons* made one *khar*.

The metric system of weights and measures was introduced in the district with effect from October 1, 1960 and is gradually replacing the old system even in the markets in the interior of the district.



CHAPTER VII

COMMUNICATIONS

Trade Routes and Highways

The region covered by the present district of Dehra Dun was connected by road in the past with Himachal Pradesh, Uttarkashi, Tehri Garhwal and Pauri Garhwal in the Himalayas and with Bijnor and Saharanpur in the plains. The paths, however, were in most cases of beaten earth and used only in the dry season and in the rainy season the soft sticky clay in the Doon valley restricted travel and transport to the minimum.

The great trade routes connecting Dehra Dun with the plains were the Roorkee-Bajpur-Landaurl road and the Saharanpur-Chakrata road. The first was cleared and widened by Mr Shore in about 1823, chiefly through convict labour. Th road carried a heavy traffic in the summer months, particularly beyond Dehra Dun. Heavy carts spoiled the road and clouds of dust stifled the travellers during April, May and June. Heavy carts and carriages stopped at Rajpur, but a good bridle-path bifurcated from it at Barlowganj and proceeded to Mussoorie and Landaurl. The baggage was carried by mules, porters or light carts.

The Saharanpur-Chakrata road was constructed in 1873. With the construction of the railway in 1900, the traffic on the road was cut to a minimum.

The third connecting link between the plains and Dehra Dun was the Dehra Dun-Hardwar road which used to leave the district by the Motichur Rao and was not available for cart or carriage traffic. It was diverted at Kans Rao and proceeded down the high bank of the Suswa river and under the shoulder of the Siwaliks to Hardwar. The traffic on this road decreased considerably after the construction of the railway; however, it increased after 1935 when motor vehicles started plying on it.

Dehra Dun town was also connected with Rampur Mandi, Sahaspur and Dunga in the district. Sahaspur was linked with Harrawala which lies at the foot of the hills. A bridle-path ran between Harrawala and Mussoorie.

The main Mussoorie-Simla road, as far as the river Yamuna and beyond the western boundary of Mussoorie, was located within the territory of the raja of Tehri Garhwal. There was another very old road to Simla from Mussoorie which descended steeply to the Yamuna.

In the olden days there were halting and resting places in the hills, called *chattis*, which were maintained all along these routes at intervals of 1 to 8 km., and were managed by local people. However in the wake of the introduction of vehicular traffic, the *chattis* have now mostly ceased to exist.

The journey in the hills by trade routes or pilgrim routes was made through deep gorges, steep precipices and forests infested with wild animals, and was not without risk. Pilgrims and traders climbed the hills carrying their luggage and goods either themselves or through porters. In the Doon valley trade routes proceeded to Saharanpur, Bijnor, Delhi and Moradabad and other districts of Uttar Pradesh. These routes were a shade better than footpaths and at many places ended on the banks of rivers which were crossed by means of boats.

The British first enlarged the routes in the hills with little attention to gradient or contour. The paths accordingly went up one slope and down the other by the most direct line which could be traversed. Later, with the construction of better roads, hackney carriages came into vogue. In the last three decades of the twentieth century continuous improvement was made in the state of bridle-roads.

In 1900, there were only about 20 km. of metalled roads in the district. The construction and improvement of roads was accelerated in the thirties and again after 1950. In 1970, there were about 592.6 km. of metalled roads in the district.

The following metalled roads were constructed in the three Five year Plan periods :

Doiwala—Rishikesh portion of Dehra Dun—Rishikesh road

Dehra Dun—Sahasra Dhara

Herbertpur—Rampur Mandi

Road from km. 22.4 of Hardwar—Badrinath road

Bye-pass road from km. 17.6 to km. 20.3 of Hardwar—Badrinath road

Doiwala—Bhullawala

Doiwala sugar factory road

In addition, motor roads were constructed in the hills connecting Chakrata with Tiuni, Mussoorie with Chakrata via Lakhwar, Kalsi with Lakhwar, Mussoorie with Tehri and Lamberpur with Langha.

Highways

The roads of the district are now classified as State highways, local roads and roads under the jurisdiction of other departments like the forest department and local bodies. The public works department is

responsible for the maintenance of State highways and major district roads; the Zila Parishad and the other local bodies maintain the local roads, and the forest department looks after roads within its jurisdiction.

The following is a list of highways maintained by the public works department ;

State Highway—Metalled

Delhi—Mussoorie (Dehra Dun-Mussoorie section)

Dehra Dun—Rishikesh

Hardwar—Badrinath (section passing through the district)

Saharanpur—Chakrata

Kalsi—Lakhwar

Other Roads—Metalled

Dehra Dun—Chakrata (a section)

Dehra Dun—Sahasra Dhara

Herbertpur—Rampur Mandi

Diversion to Mussoorie (on Dehra Dun—Mussoorie road)

Antibiotics factory link, Rishikesh

Dehra Dun—Raipur

Doiwala—Bhullawala

Doiwala—Hardwar

The public works department also maintains feeder roads to the railway stations at Doiwala, Harrawala, and Rishikesh, the upper and lower feeder roads at Rajpur, etc.

The State highways and other metalled roads in the jurisdiction of the public works department are painted.

The Zila Parishad maintains the following metalled roads connecting the various *pattis* in the hills and villages in the Doon valley, the total length of metalled roads is 8.6 km. while the total length of unmetalled roads is 616.4 km.

 Road

Metalled

Raipur—Mianwala
 Harrawala—Gularghatti
 Nagagher—Bhogpur

Unmetalled

Chakrata—Lakhamandal
 Ketang—Pahasu
 Kalsi—Koti
 Raipur—Bhogpur
 Sainj—Kandoi
 Pologround, Dehra Dun—Dharta
 Lower Simla road
 Kalsi—Barrat
 Dunga—Selakui
 Nagthat—Maissase
 Kanwali—Selakui
 Sahaspur—Mandwala
 Dudher—Mithrawala
 Pokhri—Kaknai
 Kota—Lakhamandal
 Karwapani road
 Doiwala—Telluwala
 Kuna—Bijnad
 Thano—Ladwakot
 Anu—Hatal
 Ghewalini—Pijitalani
 Majra—Dunga
 Sahaspur—Harrawala
 Nahin—Thano
 Sathji—Nahin
 Harrawala—Mussoerie
 Kotra—Katapathar
 Sahiya—Dokhari

*[Continued]*

 Road

Thano—Gularghatti
 Thano—Bharuwala
 Dlaki—Ambari
 Nahin—Suridhar
 Dyadilari road
 Mussoorie—Chakrata
 Basantpur—Madsai
 Barmigad road
 Baderna road
 Dunga—Mussoorie
 Rijitalani road
 Lakhwar Plan road
 Nagthat—Bisoi
 Birmau—Kardi—Nagau
 Nagau—Magti
 Ghewalani road
 Katal—Itharna
 Dehra Dun—Dunga
 Nalapani road
 Nagagher—Bhogpur
 Harrawala—Gularghatt
 Raipur—Mianwala
 Majra—Mehuwala
 Pondha—Manduwala
 Nandi-ki-Chowki road
 Raiwala village road
 Rainipokhari—Satyanarain
 Panditwari road
 Kaulagarh road
 Kalsi market road
 Nehrugram road



The Dehra Dun municipal board maintains 112 km. of metalled roads and 19.2 km. of unmetalled roads in the city of Dehra Dun. The municipal boards of Mussoorie, Rishikesh and Vikasnagar maintain 54.4 km. of metalled roads.

The forest department maintains about 800 km. of unmetalled bridle-roads.

MODES OF CONVEYANCE

The beasts of burden used in the past in the hills of Dehra Dun and Chakrata tahsils were sheep, goats, ponies and horses. The sheep were of a sturdy, long-legged Tibetan stock, bearing no resemblance to their diminutive counterparts of the Doon valley. These animals are now mainly maintained for their wool. The goats used for transporting goods were stout shaggy animals either imported from Tibet or the western Himalayas. The quality of local goats has been considerably improved now with the help of *chamba* bucks imported from Himachal Pradesh.

Horses and ponies were raised in Tibet and imported into the district till 1962. Horses, however, were seldom used for carrying loads, and as good saddle animals they commanded high prices.

The *dandi* was a popular mode of conveyance in the hills and was generally carried by four persons, called *jhampanis*. With the development of motor vehicles this mode of transport has nearly vanished and only a few *dandis* are now found in the district, mainly in the hill station of Mussoorie during the summer rush.

A *dandi* is like a wooden chair (without legs), about 0.9 m. in width and 1.8 m. in length. It is carried by *jhampanis* who shoulder the four ends of the rods strapped to the ends of a *dandi*. Rickshaws are also available at Mussoorie.

In the Doon valley tongas, horses and ponies were used in considerable numbers in the past. Tongas are now confined to the urban centres at Dehra Dun and a few other places. There were 152 in Dehra Dun city in 1971. The number of horses and ponies used has declined sharply in the wake of trains and motor vehicles. Cycles were introduced in the district, in the thirties of this century. However, they are not so popular in the Doon valley, as the cyclist has to put in a lot of energy while negotiating an incline and there are too many inclines even in the Doon valley. There were 11,000 cycles registered with the municipal board, Dehra Dun in 1971. Only a few cycle-rickshaws operate at Vikasnagar.

Porters are available in all urban centres and they are sturdy men who can carry 80 kg. uphill and negotiate dangerous bridle-paths and bridges. A porter balances his load on a T-shaped stick, which is attached to his back. For lighter loads only ropes are used to secure them on the back. While walking with a heavy load, the porter sometimes adopts a peculiar procedure. When he finds that his load is too

heavy, he increases it further by adding a heavy stone or two. He struggles for some distance under the increased burden, and then drops the stone, to induce the feeling that now his burden has been lightened.

In the valley porters are engaged to carry goods in hand-carts from the railway stations to the market. Porters are also available at railway stations.

Goods Traffic

The transportation of goods in bulk has been undertaken by motor trucks since 1947 after improvement of the old roads and construction of new ones.

Transport of goods by trucks is convenient as goods are mostly taken right up to and delivered at one's door. Transport by trucks also results in lesser losses, wear and tear. In a majority of cases, the distance between two places when covered by trucks is shorter than that by rail. The road mileage from Dehra Dun to Saharanpur is much less than by rail for instance. In 1970 as many as 808 public carriers, 386 stage carriages and 76 private carriers were engaged in the district in the transport of goods. The trucks carry timber, agricultural produce, hill products, limestone, general merchandise and a variety of other items.

The following transport companies are registered with the regional transport officer, Dehra Dun :

Transport company	No. of trucks operating in 1970
1	2
Hindustan Construction Company, Ltd, Khadar, Dehra Dun	85
Patel Engineering Co., Ltd, Dehra Dun	5
Highway Motor Transport Company (P), Ltd, Dehra Dun	5
Hind Transport Company, Ltd, Dehra Dun	4
Punjab Limestone Company, Ltd, Dehra Dun	4
Commercial Transport Company, Dehra Dun	4
U.P. Minerals, Ltd, Dehra Dun	3
General Transport Company, Ltd, Dehra Dun	3
Raj Transport Company, Ltd, Dehra Dun	3
Karan and Company, Ltd, Karanpur	3
Kumar Trading Company, Ltd, Dehra Dun	3

(Contd.)

1	2
Punjab Transport Company, Ltd, Dehra Dun	2
A Dean and Company, Ltd, Dehra Dun	2
The Doon Co-operative Transport Society, Dehra Dun	2
Marva and Co., Ltd, Dehra Dun	2
Chuni Transport Company, Ltd, Karanpur, Dehra Dun	2

Each truck carried about 37 quintals. The maximum rate of freight is 1.75 per quintal per kilometre for goods carried in the Doon valley, on the roads south of Dehra Dun city. The maximum rates of freight for goods carried in the hilly regions of the district varies from Rs 5.05 to Rs 7.95 per quintal per km. depending on the condition of roads and category of goods carried.

Vehicular Traffic

In the year 1984, motor vehicles began to ply up to Mussoorie from Dehra Dun. However, the traffic has considerably increased since 1947. In 1970 as many as 4,125 motor cycles, 1,845 motor cars, 669 taxis and 123 jeeps were registered with the regional transport authority. Taxis are available at Dehra Dun and Rishikesh for visiting Mussoorie and other places of interest in the hills. The bulk of the passenger traffic in the district is now carried by the U.P. Government roadways and private buses. The Roadways were introduced in the district in 1948, when buses started operating on the Dehra Dun-Delhi, Dehra Dun-Kin Craig, Dehra Dun-Saharanpur and Kin Craig-Saharanpur routes. In 1970 as many as 80 buses were operating on 26 routes covering about 4,000 km.

The following statement gives the number of buses of the U.P. Government roadways, operating in 1970 on routes passing through the district :

Route	No. of buses
1	2
Dehra Dun—Delhi	23
Dehra Dun—Saharanpur	11
Dehra Dun—Mussoorie	8
Rishikesh—Delhi	6
Rishikesh—Hardwar	5
Dehra Dun—Rishikesh	4
Mussoorie—Saharanpur	3
Kalsi—Muzaffarabad—Chhutmalpur	3

[Contd.]

1	2
Dehra Dun—Ambala	2
Dehra Dun—Chamba	2
Dehra Dun—Pauri	2
Dehra Dun—Karnal	2
Mussoorie—Chakrata	2
Dehra Dun—Tehri	2
Dehra Dun—Kotdwara	2
Rishikesh—Hardwar—Kaithal	2
Dehra Dun—Mathura	1
Dehra Dun—Meerut	1
Dehra Dun—Roorkee	1
Dehra Dun—Bhogpur—Rishikesh	1
Dehra Dun—Narendranagar	1
Mussoorie—Sharipani	1
Dehra Dun—Thano	1
Chhutmalpur—Chodiala	1
Mussoorie—Kempty Fall	1
Dehra Dun—Hardwar	1

The Dehra Dun city bus service was started by U.P. Government roadways on May 10, 1949, when two buses operated on the Dehra Dun-Premnagar and the Dehra Dun-Clement Town routes. In 1970 as many as 23 buses operated on nine routes covering 97 km. The following statement gives the number of buses operating on each route in 1970 :

Route	No. of buses
Dehra Dun Clock Tower—Clement Town	5
Dehra Dun Clock Tower—Premnagar	5
Dehra Dun Clock Tower—Rajpur	4
Dehra Dun Clock Tower—Doiwala	3
Dehra Dun Clock Tower—Raipur—Thano	2
Dehra Dun Clock Tower—Sahasra Dhara	1
Dehra Dun Clock Tower—Mothrowala	1
Dehra Dun Clock Tower—D.L. Road	1
Dehra Dun Clock Tower—Mianwala Road	1

The U.P. Government roadways has also engaged 15 trucks for carrying goods. About 1,26,000 quintals of food-grains and building materials were carried by these in 1970.

Private Bus Service—The Ex-soldier's Transport Company, Ltd., provides a fleet of buses for journey, to Chakrata and Sahaspur from Dehra Dun. Private buses also ply between Saharanpur and Chakrata.

Waterways, Bridges and Ferries

Waterways—The Yamuna and the Ganga are the main rivers that carry timber in the form of sleepers. In the past sleepers were carried up to the plains but now they are taken out of the rivers near Kalsi and transported thereafter on trucks. In the forests of the district, trees are felled, their branches and barks removed, and the trunks sawn by hand into rectangular 2.13 m. lengths known as sleepers. These are brought to the rivers when there is enough water in the summer season, made into rafts, each raft comprising about 20 sleepers, and floated down. The rafts are guided by skilled men on their journey downwards, and are finally collected at Kalsi.

Bridges—The public works department has been repairing old bridges and constructing new bridges on the roads of the district on a greater scale in the wake of Five-year Plans. The construction of a small bridge in the hilly regions requires less time and money than one in the plains, but the task is naturally more hazardous.

Generally suspension bridges are to be found in the hilly tracts of this district. In the construction of these two sets of cables are stretched across the river, and their ends are secured in the banks, the path consisting of pieces of wood, lashed little distance apart from each other, as in a ladder, and secured at right angles to the cables by ropes. The horizontal cables form a balustrade to support the passenger, while stepping from one piece of wood to another. In modern bridges, ladder like steps are also secured by means of cables to the opposite banks. A construction of this kind necessarily requires high banks on both sides of the stream, but where this advantage is wanting, the deficiency in height is supplied by wooden or steel galleys erected on the two banks over which the ends of the cables are passed and secured.

The forest department maintains the bridges on its roads and the Northern Railway maintains bridges on the railway lines in the district.

Ferry—There is only one old ferry service in the district on the river Yamuna. It connects the district with Simur territory and is in the administrative control of the Zila Parishad, Dehra Dun. A sum of Rs 24,240 was earned by the Parishad in 1970 from this.

Railway

The Hardwar-Dehra Railway, which was managed by the erstwhile Oudh and Rohilkhand Railway, constructed the railway line between

Hardwar and Dehra Dun in 1900, covering a distance of 52 km. The length of this track in district Dehra Dun is 42 km. with stations at Raiwala, Kans Rao, Doiwala, Harrawala and Dehra Dun. Later on a branch-line also connected Raiwala with Rishikesh covering a distance of 12 km. with stations at Virbhadra and Rishikesh.

With the reorganisation of the railways in 1952 the railway lines in the district came under the jurisdiction of the Northern Railways with their headquarters at New Delhi.

The following statement gives information about the railway station in the district :

Railway station	Distance from Dehra Dun (in km.)
Dehra Dun	—
Harrawala	10
Doiwala	20
Kans Rao	33
Raiwala	46
Virbhadra	52
Rishikesh	60

Travel Facilities

There are dharmshalas situated at Rishikesh, Dehra Dun and other urban centres. Some of the prominent ones at Rishikesh are managed by the Baba Kali Kamli Wala Kshetra which has its headquarters at Rishikesh and was founded by the late Swami Vishudhanand in 1883. The dharmshalas at Rishikesh cater mainly to pilgrims. The others charge a nominal rent for accommodation. Food is not supplied. A list of dharmshalas and hotels appears at the end of the chapter in Statement I.

The district is unusually well-provided with dak bungalows, inspection houses and rest-houses. The forest department formerly maintained 26 rest-houses, the Zila Parishad (then known as the district board) 10 dak bungalows, the public works department 3 inspection houses, and the canal department 3 bungalows. The railway had an inspection bungalow near Raiwala and the Dehra Dun Fishing Association also had a couple of bungalows.

These inspection houses, rest-houses and dak bungalows are still maintained by different departments of the government but now private persons can also stay in them if accommodation is available. The largest number is maintained by the forest department, followed by the canal department, the public works department and the Zila Parishad. A government servant on duty generally enjoys preference in

reservation and also has to pay a nominal rent only. A list of inspection houses, dak bungalows, also giving the name of the managing department, a reference to which can be made for reservation of accommodation, is given at the end of the chapter in Statement II.

A tourist bureau has been established at Dehra Dun since 1958 and branches have been opened at Mussoorie and Chakrata. Tourists proceeding to the district are provided with information about different places of interest and tourist lodges in the district by officials of these centres.

Many of the hotels at Mussoorie, Dehra Dun, Rishikesh and Chakrata provide both accommodation and board. There is much rush in the summer and during September and October, where a large number of tourists visit the district. A list of hotels, and tourist houses appears in Statement I at the end of the chapter.

Post-Telegraph-Telephone Offices

Post-offices—Sometime between 1840 and 1850 a district post was organised for the first time and a service of runners instituted between Dehra Dun and outlying stations, the cost being defrayed from a cess levied on land-holders. Official correspondence was, however, transmitted through the agency of the police. The service was opened to the public in 1873 and a fee of 2 pice was charged on the delivery of every packet. A major change took place in 1893, when the imperial post extended its operations with the object of gradually absorbing the principal district mail or postal lines and offices. By 1900 the district post was abolished and the postal services were reorganised with headquarters at Dehra Dun.

With the introduction of the railway in 1900 mail was carried by the railway, the transmission being effected by runners in the interior of the district. By 1909 there were 31 post-offices in the district. The development and extension of roads has accelerated the pace of distribution of mail in the district. Motor vehicles have replaced the runners on many postal routes. However, in the interior of the district, runners are still employed to reach remote villages.

There are now about 250 post-offices in the district of which 172 are branch-offices. A majority of the post-offices also operate savings banks.

There were 32 telegraph offices in 1972 in the district. Public call offices have also been opened in the urban centres and as many as 40 public call offices were operating in 1972. The total number of telephones in the district in 1972 was 4,027 and 99.5 per cent of the telephones were located in Dehra Dun tahsil.

Broadcast Receivers

Broadcasts from All India Radio as well as from foreign countries provide a variety fare of entertainment and the latest news. More and more people are buying radio sets and transistors are also very popular. The number of radio receiving licences issued in the district was about 22,492 in 1970-71.

STATEMENT I

Dharmshalas, Hotels, etc.

Reference Page No. 164—165

Village/Town	Name	Facilities available	Management
TAHSIL CHAKRATA			
Chakrata	Chakrata Dharmshala	Lodging only	Private
Do	Kishori Lal Dharmshala	Do	Do
Do	Kalsi Dharmshala	Do	Do
Do	Sahiya Dharmshala	Do	Do
Do	Sunaron-Ki-Dharmshala	Do	Do
TAHSIL DEHRA DUN			
Dehra Dun	Aggarwal Dharmshala	Lodging only	Do
Do	Deep Chand Dharmshala	Do	Do
Do	Jain Dharmshala	Do	Do
Do	Panchayati Dharmshala	Do	Do
Do	Shivaji Dharmshala	Do	Do
Enfield Grant	Vikasnagar Dharmshala	Do	Do
Rishikesh	Baba Kali Kamli Wala Dharmshala	Do	Do
Do	Punjabi Sindhi Kshetra Dharmshala	Do	Do
Sahaspur	Sahaspur Dharmshala	Do	Do
Vikasnagar	Sri Sanatan Dharmshala	Do	Do
Dehra Dun	Aroma Hotel	Lodging and boarding	Do
Do	Cannaught Hotel	Do	Do
Do	Central Lodge	Do	Do
Do	Doon Guest House	Do	Do
Do	Doon Lodge House	Do	Do
Do	Doonga House	Do	Do
Do	Doon View Hotel	Do	Do
Do	Holiday Inn Indiana	Do	Do
Do	Majestic Hotel	Do	Do
Do	Metro Hotel	Do	Do
Do	Moti Mahal	Do	Do
Do	Motel Kwality	Do	Do
Do	Mountain View	Do	Do
Do	Oriental Hotel	Do	Do
Do	Park View Hotel	Do	Do
Do	Parhas Hotel	Do	Do
Do	Prince Hotel	Do	Do
Do	Rajpur Guest House	Do	Do
Do	Ranjeet Hotel	Do	Do
Do	Rattan Hotel	Do	Do
Do	Regent Hotel	Do	Do
Do	Sangam Hotel	Do	Do
Do	Standard Hotel	Do	Do
Do	St. Moor	Do	Do
Do	Sukh Sadan	Do	Do
Do	Subhas Chandra Gupta Hotel	Do	Do
Do	Victoria Hotel	Do	Do
Do	Vikas Hotel	Do	Do
Do	White House Hotel	Do	Do

STATEMENT II
Inspection Houses, Dak Bungalows, etc.

Reference page No. 165

Place	Name	Managing Department/ authority
1	2	3
TAHSIL CHAKRATA		
Bhandroli	Bhandroli Forest Rest House	Forest Department
Birnar	Kathian Forest Rest House	Ditto
Chakrata Cantonment	Chakrata Cantonment Forest Rest House	Ditto
Chatra	Chatra Forest Rest House	Ditto
Chhajar	Molta Ditto	Ditto
Chitar	Mundali Ditto	Ditto
	Baragad Ditto	Ditto
Hatal	Hatal Ditto	Ditto
Kalsi	Kalsi Ditto	Ditto
Kota	Kuono Ditto	Ditto
Koti	Kanasar Ditto	Ditto
Kuanian	Bhujkoti Ditto	Ditto
Masak	Bodiear Ditto	Ditto
Mohna	Deoban Ditto	Ditto
Nada	Nada Ditto	Ditto
Sidi	Brontha Ditto	Ditto
Tuini	Tuini Ditto	Ditto
Bisoi	Naghtat Dak Bungalows	Zlia Parishad
Brontha	Brontha Ditto	Ditto
Chakrata	Chakrata Ditto	Ditto
Chaurani	Chaurani Ditto	Ditto
Kalsi	Kalsi Ditto	Ditto
Kandoi	Kandoi Ditto	Ditto
Lakhwar	Lakhwar Ditto	Ditto
Manthat	Manthat Ditto	Ditto
Sahuja	Chakrata Forest House	Forest Department

{Contd.

1	2	3
TAHSIL DEHRA DUN		
Ambari	Ambari Inspection House	Irrigation Department
Bhogpur	Dak Bungalow	Ditto
Dhalipur	Dhalipur Yamuna Bhawan	Ditto
Enfield Grant	Dak Pather Inspection House	Ditto
Dehra Dun	Dehra Dun Ditto	Public Works Department
Sahaspur	Sahaspur Ditto	Ditto
Rishikesh	Rishikesh Nirman Bhawan	Ditto
Barkant	Barkant Dak Bungalow	Forest Department
Dehra Dun	Circuit House	Ditto
Fanduwalla	Fanduwalla Dak Bungalow	Ditto
Gola Tappar	Gola Tappar Ditto	Ditto
Har Basi Grant	Kaswa Pani Ditto	Ditto
Haripur Kalan	Haripur Kalan Ditto	Ditto
Harrawala	Harrawala Ditto	Ditto
Kans Rao	Kans Rao Ditto	Ditto
Lachhiwala	Lachhiwala Ditto	Ditto
Raipur	Raipur Ditto	Ditto
Raiwala	Raiwala Ditto	Ditto
Ram Nagar Danda	Ram Nagar Danda Ditto	Ditto
San Gaun	San Gaun Ditto	Ditto
Satya Narain	Satya Narain Ditto	Ditto
Timli	Timli Ditto	Ditto
Timli Man Singh	Timli Man Singh Ditto	Ditto

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

Workers—According to the census of 1961, the population of the district was divided among the workers and non-workers, the percentage of the workers to total population being 40.2. The corresponding figures of workers for the State was 39.1. Among the workers 39.8 per cent were cultivators and agricultural labourers, 29.7 per cent were engaged in other services, followed by household industry and other manufacturing establishments jointly claiming 12.9 per cent and trade and commerce 7.1 per cent of the working population. In other categories, the number of workers was small. Female participation was significant as the percentage of females among workers amounted to 20.4 per cent. It was higher in agricultural activities as compared to non-agricultural pursuits being 65.6 per cent and 34.4 per cent respectively.

Of the rural population 46 per cent were workers and 54 per cent non-workers, the corresponding figures for the urban areas being 83 and 67 per cent respectively. Thus the population of workers is lower in the towns than in villages. Among rural workers 68.1 per cent were cultivators and agricultural labourers and workers engaged in non-agricultural activities account for 36.9 per cent only. The important non-agricultural categories of workers in the urban areas were other services, trade and commerce and household industries and other manufactures, the percentage of workers in other services being 58.1, in trade and commerce 14.9 and in household industries and other manufactures 12.9.

The largest number of persons employed after agriculture was in the public services in the offices of the Central Government numbering 15,330, followed by miscellaneous services being 9,637. Occupationally the bulk of the workers comprised administrative and executive officials of Central Government being 14,355 and general labourers 12,218.

According to the census of 1971, the percentage of workers amounted to 34.8. The corresponding figures of the workers in the State were 32.2 per cent. Among the workers 38.52 per cent were engaged in other services, 32.6 per cent were cultivators and agricultural workers, followed by 9.27 per cent in industries and other manufacturing establishments, 7.93 per cent in trade and commerce and 3.84 per cent in transport, storage and communications. In other categories the percentage was small.

Non-workers—The non-workers constituted 59.8 per cent of the total population, the females accounting for 61.1 per cent. About 60.1 per cent were in the age-group of 0-14, being mostly infants and

dependents. In all other age-groups, females were mostly engaged in household duties. The distribution pattern of non-workers among males and females was quite dissimilar. Among male non-workers 50.9 per cent were full-time students and 44.4 per cent dependents. The corresponding figures for females were 14.6 and 39 per cent respectively. Higher percentage of dependents among males is explained by their near absence from household duties who claimed a negligible percentage of 0.3 per cent as against 45.7 per cent among females.

In 1971, the non-workers constituted 65.2 per cent. The corresponding figures of the State amounted to 67.8 per cent.

AGRICULTURE

In 1911, the total number of workers under all agricultural heads was 61,111 and by 1921 the figures rose to 69,540. The increase in the decade was due chiefly to the rise in prices of agricultural produce between 1914 and 1921 owing to the outbreak of the First World War. This caused speedy migration of urban labour to the rural side and spurt in agricultural incomes. Increase in agricultural production and excessive pressure on land, however, contributed to a lowering of incomes in the rural areas. The result was again a migration of labour in the reverse direction, that is, towards urban areas. In 1951, the number of all agricultural workers was 68,181 and remained almost constant, being 68,535 in 1961 of which 1,465 were in urban and 67,070 in rural areas. In 1971, the number of workers rose to 73,526 of whom 71,715 were in rural areas and 1,811 in the urban areas of the district.

INDUSTRY

The actual number of workers in industries of all kinds in the district shows a decrease in 1951 as compared to 1921, the number being 10,600 in 1921 and 10,400 in 1951. In 1961, due to general growth and expansion of industries the number of workers had swelled to 22,102 of which 8,512 were in urban and 13,590 in rural areas. But in 1971, the figure stood at 18,635, of which 6,381 were in rural and 12,254 in urban areas.

TRANSPORT

The number of workers employed in transport in 1921 was 2,296, which rose to 3,435 in 1951. The number further increased to 4,896 in 1961 of which 3,846 were in urban areas. Of the total workers 648 were employed in the railways and 962 in the roadways. *Palki* bearers and owners have decreased considerably.

TRADE AND COMMERCE

There were 7,226 workers engaged in various trades in 1921 and their number rose to 11,581 in 1951. Due to urbanisation and improved facilities of transport in the district trade and commerce showed

a rapid progress resulting in an increase of workers under this head to 12,311 in 1961 of which 9,825 were in urban and 2,486 in rural areas. The number of workers further increased in 1971 to 15,954 of whom 2,123 were in rural areas and 13,831 in the urban areas.

PUBLIC ADMINISTRATION

After annexation of the district by the British in 1815, the government felt that the progress of the district was dependent upon colonisation and reclamation of waste lands. People were encouraged to take large grants in 1838 on very favourable terms.

The development of the tea industry, the afforestation schemes undertaken by the forest department, the leniency of the settlement concluded in 1836 by Ross, provision of housing colonies for the pensioners, the increasing popularity of Mussoorie and Landour towns for tourists and the opening of the railways in 1900 have all contributed towards the economic prosperity of the district. It was also the headquarters of several scientific departments of Government of India which established a number of offices in the district providing job opportunities to the local inhabitants of the district. The total number of persons in public service was 9,300 in 1921 of which 1,192 were employed in the civil administration and 218 in the police. The number of employees in government (State and Central) and quasi-government offices and local bodies swelled to 18,442 in 1961 of which 14,104 were in urban areas.

In 1970, the number of employees of the Central Government in the district was 19,033 of the State Government 9,937 in quasi-governmental establishments 7,795 and in local bodies 5,100. The biggest establishment of the State Government in the district is that of the executive engineer, public works department, which employed 1,355 employees, followed by assistant general manager, U.P. Government roadways employing 837 persons and the district magistrate 389 employees.

Amenities Available for Central, State and Local Bodies Employees

The Central and State Governments and the establishments of the quasi-government offices and the local bodies provide certain amenities for their employees, the most important of which is the payment of a regular dearness allowance, varying according to the scale of pay and the status of employment to meet the rising cost of living. Loans are also given by the government to enable its servants to purchase their own means of conveyance and to build their houses. Various other facilities such as loans from provident fund, free medical treatment, uniform allowance, free accommodation and educational concessions to the children of certain class of employees, facilities for recreation and accommodation where available, charged at 10 per cent of pay, are also enjoyed by the government servants. The employees of the State Government have organised themselves into the Rajya Karma-chari Sanyukt Parishad and Ministerial Employees Association which are affiliated to their corresponding State level organisations.

LEARNED PROFESSIONS

Education

In the past, education was more or less the exclusive concern of religious teachers and institutions; pupils went to *pathshalas* (schools) which were run mostly by the Brahmins. Teaching was an act of philanthropy and no regular tuition fee was charged. The modern system of education has gradually changed the traditional class of village school teachers which has now almost vanished and has been replaced by a professional class of school and college teachers.

The total number of teachers in 1921 teaching in various schools and colleges of different categories in the district was 231, of which 4 were women. The figure does not include clerks and non-teaching staff employed in these institutions. In 1961, the number of teachers rose to 2,943 including 758 women. Of these 46 (including 9 females) were teaching in degree colleges, 804 (of whom 51 were women) in secondary schools and 2,139 (including 689 women) in the primary and middle schools. Under the government programme for expansion of education the number of teachers increased to 3,807 (including 1,154 women) in 1970-71. Of these 1,194 (including 477 women) were teaching in higher secondary, 590 (of whom 213 were women) were teaching in senior Basic and 1,775 (including 464 women) in junior Basic schools. There were 248 teachers in the degree colleges of whom 11 were women.

From 1964 the Triple Benefit scheme has been extended to the State-aided institutions run by the local bodies or private managements. The scheme provides facilities of contributory provident fund and compulsory life insurance and pension including family pension to teachers. The teachers employed in government institutions are entitled to all the benefits available to the employees of the State Government.

Teachers' wards are entitled to enjoy freeship in tuition fee up to intermediate classes. Needy and disabled teachers can get financial assistance from the National Foundation for Teachers' Welfare Fund and those suffering from tuberculosis can get admission in the Bhowali sanatorium where seats are reserved for them. Principals, headmasters/headmistresses of government higher secondary schools and government normal schools and lady teachers in primary schools in the rural areas get residential quarters. The teachers of the district have organised themselves into the Principals' Association, Secondary Teachers' Association and Primary Teachers' Association. The main aim of these associations is to look after the welfare of their members and to promote their interests such as their service conditions, pay, allowances, etc.

Medicine

During the reign of the rajas of Garhwal *vaid*s were employed to administer medicine to the people. It was only after the annexation

of the district by the British that allopathic dispensaries were opened. The Ayurvedic system, thereafter, began to lose ground gradually.

In 1921, there were 145 medical practitioners of all kinds including dentists and veterinary surgeons and 104 midwives, vaccinators, compounders, nurses, etc. Their number increased to 528 and 182 respectively in 1961. In 1970, the State hospitals and dispensaries employed 56 allopathic doctors, one homoeopathic doctor, 3 extension educators, 13 midwives, 49 nurses, 6 health visitors and 3 social workers.

Generally no consulting fee is charged by private doctors and physicians but the cost of medicine includes the consultation and examination fees also. The earning of a private doctor invariably depends on his reputation and efficiency. Doctors in government service get a fixed salary and are allowed to do private practice during off hours. This facility is, at times, withdrawn, when appropriate non-practising allowance is added to their emoluments.

There is a branch of the Indian Medical Association in the district which was established in 1928. The main aims of the association are to promote and advance medical and allied sciences in all their different branches, to promote the improvement of public health and medical education in India, to maintain the honour and dignity of the medical profession and to promote co-operation amongst the members. In 1970, it had 59 members.

Law

Law graduates and a few retired persons possessing a degree in law often take to the legal profession. A few women can also be seen in the profession. The number of lawyers, pleaders and mukhtars in the district in 1970 was 180. Generally every legal practitioner has a *moharir* or clerk but some leading lawyers have more than one working for them.

From among the lawyers in the district generally law officers are appointed to the posts of public prosecutor, assistant public prosecutors and government pleaders designated as district government counsels separately for criminal, civil and revenue work. Most of the lawyers of the district reside in Dehra Dun town as it is the place where the important district courts are located.

The profession of law is a leading profession and the lawyers generally occupy a respectable status in the social life of the community. They supply active leadership in almost all spheres of public activity, especially in the field of politics and local government.

There is a bar association which was established in 1922 with 25 members at Dehra Dun. It has its own building which houses a well-equipped library of law books and journals and a reading-room for the use of its members. It has now a membership of 145 advocates and pleaders. The aims and objects of the association are to promote

the welfare of the bar, to maintain harmonious relations between bench and bar, to safeguard civil liberties of citizens and its members and to render legal assistance to deserving persons free of cost.

Engineering

The district has engineering services under the departments of public works and irrigation, besides those under the State electricity board and local bodies. In 1970, the irrigation department had 110 engineers, the public works department 7, the electricity board 6, the municipal boards Dehra Dun and Mussoorie 4 each and the Zila Parishad one. The number of overseers now known as junior engineers in the same year in the irrigation department was 128, in the public works department 26, in the municipal board Dehra Dun 5 and the municipal board Mussoorie one.

Private, industrial and quasi-government establishments of the district also employ qualified engineers or diploma holders either in administrative or technical capacity. They are also engaged in engineering services like private engineering firms or as architects and surveyors.

DOMESTIC AND PERSONAL SERVICES

Domestic Servants

Domestic servants who are employed in personal services comprise an important portion of the population. Their number has been increasing steadily. They are unskilled workers and their wages are generally lower as compared to other occupations. They render whole-time service as well as part-time. Whole-time domestic servants are employed only by the well-to-do, while their part-time engagement is more common. In many cases one worker is employed by more than one person, each family claiming only a few hours of his or her services. They are paid monthly in cash or both in cash and kind.

In 1961, there were 2,408 butlers, bearers, waiters, maids and other domestic servants, 1,684 cooks and other workers and 915 cleaners, sweepers and watermen.

Barbers

In the past barbers used to go from door to door for hairdressing. The practice has now dwindled with the opening of a number of barber saloons in the urban and rural areas of the district. In the towns of Dehra Dun, Rishikesh and Mussoorie barber saloons are well equipped and generally engage more than one worker. Usually the owner himself works and is assisted by paid employees. In the rural areas the owners of the shops themselves work alone. The other class of barbers, catering to the needs of the poorer section of society, is seen on the roadside attending to their customers.

Barbers, besides following their main profession of hairdressing, also sometime serve on ceremonial occasions such as births, marriages and deaths, when they are generally assisted by their women-folk. Formerly they used to serve as go-between in matchmaking but their services for this purpose are seldom utilised now.

In 1921, there were 482 barbers and wig makers in the district. The number of barbers and related workers rose to 725 in 1961.

Washermen

Formerly washermen used to collect clothes from the families over which work they had a monopoly. The practice is now fast dying out because they became unpunctual in the delivery of clothes and increased their rates. Consequently many people prefer to do without their services. There are few washermen in the urban areas now who still go from house to house to collect clothes for washing. With the emergence of the laundry system and detergent powders and soaps, people prefer either to give their dirty clothes to a laundry of their choice or to wash them themselves. In rural areas laundries are few in number and washermen assisted by their women-folk still do the washing. In 1921, there were 902 washermen, and by 1961 their number had increased to 936.

Tailors

Tailors are mostly found in the urban areas and are seen sewing clothes both for males and females. In the towns of Dehra Dun, Mussoorie and Rishikesh there are a number of big tailoring establishments. The owners of these establishments employ a number of tailors on daily or monthly wages; usually they give the cloth to their employees for sewing after doing the cutting work themselves. But many of the tailors have but one machine on which they work themselves; such tailors are spread all over the towns and other parts of the district. In 1921, there were 1,050 tailors, darners, and embroiderers, etc., in the district. Their number increased to 2,240 in 1961 of which 1,396 were in urban areas of the district.

TRADITIONAL OCCUPATIONS

It is, perhaps, interesting to find out to what extent particular castes still follow their traditional occupations by which we mean the occupation with which a caste has been always identified in the past. For instance there is nothing to show that the castes which have been following agricultural occupation in the last three or four decades have always been agriculturists by tradition. It is certain that they were never so in the same way as *barhais* are traditionally carpenters. They were probably never tied down by custom and caste to agriculture as carpenters were to wood-work, *lohars* to working with iron and *sonars* to precious metals.

The artisans and traditional classes, such as *sonars* (goldsmiths, silversmiths and jewellers), followed by *darzis* (tailors), *bhangis* (scavengers), *mochis* (shoe-makers and cobblers), *halwais* (sweetmeat makers), *dhobis* (washermen) and *nais* (barbers), still follow their traditional occupations and 40 to 50 per cent are engaged in them. Other castes which also follow their traditional occupations as principal source of income, but to a lesser degree, are *julahas* (weavers), *barhais* (carpenters), *telis* (oilmen), *kumhars* (potters), *lohars* (blacksmiths), *kahars* (domestic and personal servants), *khatiks* (fruit and vegetable sellers), butchers, *gadariyas* (shepherds and blanket weavers) and *kachhis* (market gardeners). They are followed by *kalwars* (liquor sellers), *chamars* (leather-workers), *kewats* (boatmen, fishermen and riverain occupations) and *pasis* (tari-tappers).

OTHER OCCUPATIONS

Among those who pursued certain other occupations in the district in 1961, there were 1,807 hawkers, padlars and street vendors, 1,324 carpenters and pattern makers of wood, 995 salesmen and shop assistants, 967 log-fellers and wood-cutters, 935 electricians of all kinds, 873 animal-drawn vehicle drivers, 801 shoe-makers, 519 ordained religious workers, 423 bakers, confectioners, candy and sweetmeat makers, 399 painters and paper-hangers, 347 goldsmiths, silversmiths and jewellers, 289 sawyers and wood-working machinists, 266 potters and related clay makers, 249 musicians and related workers, 231 furnacemen and kilnmen, 223 basket weavers and related workers, 123 photographers and camera operators, 108 astrologers and palmists and 69 plumbers.



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CHAPTER IX

ECONOMIC TRENDS

LIVELIHOOD PATTERN

Workers and Non-workers

The census operations conducted between 1901 and 1951 divided the population into earners or self-supporting persons and their dependents. Earners or self-supporting persons and earning dependents were all defined in such a manner as to include not only those who performed work, but also those who lived on unearned incomes from such sources as rent, royalty, pension, etc. In the census of 1961, however, the population was divided into workers and non-workers : those depending on unearned incomes being, for the first time, included among non-workers. The definition of workers now includes whole-time and part-time workers as also the family workers who are not paid in cash or kind, but the services rendered by them are computed in terms of money. If an attempt is made to classify the population of the district as enumerated at the census operations of 1901, 1921 and 1951 into the broad divisions of population as made for the first time at the census of 1961, the position would be approximately as below :

Year	Workers in Dehra Dun district	Percentage of workers to total population	
		Dehra Dun district	Uttar Pradesh
1901	88,321	49.5	45.1
1921	1,19,275	56.2	52.1
1951	1,54,848	42.7	41.7
1961	1,72,306	40.1	39.1

It would appear that the number and percentage of workers showed a rise in 1921, but it has exhibited a steady fall since then although the number of workers has registered an increase.

In the census of 1971 a person has been categorised with respect to his main activity. Unlike the census of 1961, part-time workers and family workers who were basically engaged as students, house workers, etc., have not been classified as workers in 1971. Thus, no correct comparison with the earlier position is possible due to the changes introduced in 1971.

The figures of workers in 1971 was 2,01,050 which gives a percentage of 34.8 to the population of the district as compared to the State percentage of 32.2.

Workers and Livelihood Classes

The 1961 census had classified workers into nine livelihood classes of industrial categories as described below :

- I Cultivators—Persons engaged in cultivating their lands themselves or through hired labour or managing tenanted land;
- II Agricultural labour—Persons engaged in agricultural operations on land pertaining to others, for wages in cash or kind;
- III Persons engaged in mining, quarrying, forestry, fishing, hunting and activities connected with live-stock, plantations, orchards and allied pursuits;
- IV Persons engaged in household industry run on a scale smaller than that of a registered factory by heads of households themselves or mainly by the members of one household, sometimes with hired labour, mostly at their homes;
- V Persons engaged in industries other than household industry;
- VI Persons engaged in construction and maintenance of buildings, roads, bridges, dams, canals, etc.;
- VII Persons engaged in trade and commerce, buying and selling, import and export, banking, insurance, stocks, shares, etc.;
- VIII Persons engaged in transport and warehousing industries and in postal, telegraphic, telephonic, wireless, information and broadcasting services;
- IX Persons engaged in services such as public utilities, administrative, educational, scientific, medical, health, religious, welfare, legal, personal or miscellaneous spheres or those connected with business organisations or recreation.

Persons who have not been classified as workers have been categorised as non-workers. They include dependents of workers and persons engaged in non-productive work whether they had any income or not.

If the eight livelihood patterns adopted at the census of 1951 are rearranged, as nearly as may be possible, into the nine livelihood classes adopted in 1961, the corresponding number of workers and their percentages in these two years would approximately be as in the following statement :

Livelihood class	1951		1961	
	No. of workers	Percentage to total population	No. of workers	Percentage to total population
I	68,873	17.7	60,281	14.1
II	4,808	1.2	8,254	1.9
III	7,698	2.1	8,546	2.0
IV	*	*	11,706	2.7
V	10,894	2.9	10,396	2.4
VI	1,906	0.5	8,926	0.9
VII	11,581	3.2	12,811	2.9
VIII	4,003	1.1	5,512	1.3
IX	50,585	14.0	51,874	11.9
Total workers	1,54,348	42.7	1,72,306	40.1
Non-workers	2,07,657	57.3	2,56,708	59.9
Total population	3,62,005	100.0	4,29,014	100.0

*Included in classes III and V of livelihood classes

The statement reveals that as opportunities of employment did not keep pace with the increase in population, the percentage of total workers declined during the decade.

The shifts in working patterns, represented by the livelihood classes, during this period are indicated in the statement below :

Livelihood class	Percentage of workers to total number of workers	
	1951	1961
I	41.4	35.0
II	2.9	4.3
III	4.9	5.0
IV	*	6.8
V	6.7	6.0
VI	1.2	2.3
VII	7.5	7.1
VIII	2.6	3.2
IX	32.8	29.8
Total workers		100.0

*Included in classes III and V of livelihood classes

In 1951 the agricultural sector (livelihood classes I and II) engaged 44.3 per cent of the total number of workers but showed a decrease of 4.5 per cent in 1961. The industrial sector, which is covered by the livelihood classes III, IV and V, showed an increase in 1961. The number of workers in other livelihood classes does not show any marked variations.

In 1961, out of the total males in the district, 58.9 per cent were workers, 17.6 per cent being cultivators, 2.7 per cent agricultural labourers, and 38.6 per cent engaged in other occupations. Of the total females in the district, only 15.7 per cent were workers, including 9.4 per cent cultivators, 0.9 per cent agricultural labourers, and 5.4 per cent placed in other livelihood classes.

The percentage of working force, in certain age groups, to the total male population in that group is given in the statement below :

Age group	Percentage
1	2
0—14	6.5
15—34	83.5
35—59	96.4
60 and above	72.8
Age not stated	8.3

In the juvenile age group the percentage of workers is small but not insignificant. In the age group of 15-34 about 84 per cent of males are workers while in the age group of 35-59 about 96 per cent are workers. Contrary to popular belief, about 7 persons out of ten who have attained the age of 60 or more do some kind of work. They are not sitting idle depending on others or reaping the fruits of their past labours. This proportion of workers among females is relatively much lower than that among males, being only one out of ten.

The proportion of workers (males and females combined) in the working age period (15-59 years) in the district is 56.17 per cent of the total population in that age group. Within this range the percentage is higher in the age group 35-59 (60.34) than in 15-34 (53.20).

According to the changed classification of works adopted in the census of 1971, total number of workers in each class and their percentages to total population of the district and to total number of workers are given in the following statement :

Workers and non-workers	No. of workers	Percentage of workers to	
		Total po- pulation	Total no. of workers
Cultivators	57,066	9.89	28.40
Agricultural labourers	16,460	2.85	8.20
Persons engaged in forestry, fishing, hunting and activities connected with live-stock, plantations, orchards and allied pursuits	4,688	0.81	2.30
Persons engaged in mining and quarrying	369	—	0.13
Persons engaged in manufacturing, processing, servicing and repairs :			
(a) Household industry	4,968	0.86	2.47
(b) Other than household industry	13,667	2.40	6.80
Persons engaged in construction	2,846	0.50	1.41
Persons engaged in trade and commerce	15,954	2.75	7.93
Persons engaged in transport, storage and communications	7,716	1.34	3.84
Persons engaged in other services	77,816	13.40	38.52
Total workers	2,01,030	—	100.00
Non-workers	8,76,256	—	—
Total population	5,77,806	—	—

Because of the change of classification in 1971 it has not been possible to compare the data with those of 1951 and 1961 mentioned in statement given before.

Non-workers

The non-workers of the district have been divided into the following eight categories in the census of 1961, to provide international comparability :

Categories of non-working population	District total		
	Males	Females	Total
Full-time students	50,899	22,943	73,842
Persons engaged only in household duties	273	71,699	71,972
Dependents, infants and disabled persons	44,404	61,187	1,05,591
Retired persons and people of independent means	1,843	560	2,403
Beggars, vagrants and others of unspecified source of income	920	257	1,177
Inmates of penal, mental and charitable institutions	76	61	137
Persons seeking employment for the first time	950	53	1,003
Persons employed in the past and seeking work	558	25	583
Total non-working population	99,923	1,56,785	2,56,708

In the district there are 411 male and 843 female non-workers for every 1,000 of their respective populations. Differentials by broad age groups have something more to tell. Non-workers are predominant in the age group 0-14 in which their number for every 1,000 male non-workers is 800 and for every 1,000 female non-workers it is 475. In the working age groups 15-34 and 35-59 their proportion is much lower, being 141 males and 309 females in the former and 21 males and 166 females in the latter age groups for every one thousand non-workers in each sex.

There is greater illiteracy in male non-workers than in male workers, but in the case of females the position is the other way around. To appreciate this it is necessary to recall that while non-workers are chiefly confined to the juvenile age group 0-14, females of all age groups are non-workers in an overwhelming proportion in urban areas. Literate adult females engaged in household duties are treated as non-workers. This is why there is lesser degree of illiteracy in non-working females than in working females whose ranks are largely formed by illiterates.

Dehra Dun town, however, has the distinction of having very high literacy among both male and female non-workers. The proportions of literates among non-working males and females is 592 and 496 per thousand respectively. The town tops at the primary or junior Basic level, stands third at the matriculation or higher secondary level and sixth at the degree level (non-technical). The first five at the degree level are all university towns—Aligarh, Allahabad, Lucknow, Varanasi, Gorakhpur—whereas Dehra Dun is not. Technical degree holders are very few in Dehra Dun where there is only one engineer for every thousand non-workers.

Employers, Employees and Workers

According to the census of 1961 the number of employers, employees, single workers and family workers (those who work in their own family without wages) in the non-household industries, trade, business, profession or service and of employees and others in the household industries is given in the following statements :

Non-household Industry

Type of worker		Urban	Rural	Total
Employer	Male	2,668	850	3,516
	Female	48	15	58
Employee	Male	42,215	14,588	56,798
	Female	2,454	1,607	4,061
Single worker	Male	14,212	9,588	28,745
	Female	926	1,455	2,881
Family worker	Male	1,111	801	1,412
	Female	80	64	94
Total	Male	60,204	25,267	85,471
	Female	3,458	8,141	6,594

Household Industry

Type of worker		Urban	Rural	Total
Employer	Male	88	259	842
	Female	1	7	8
Others	Male	544	7,250	7,794
	Female	185	3,377	3,562
Total	Male	627	7,509	8,186
	Female	186	3,384	3,570

GENERAL LEVEL OF PRICES OF FOOD-GRAINS AND WAGES

Prices of Food-grains

About the end of the last quarter of the nineteenth century, the district was more than self-supporting in food-grains. The economic condition of the people improved gradually due to the expansion of the Dehra Dun and Mussoorie towns, colonisation, development and industrialisation. The staple food-grains were wheat, barley, rice and *mandua*. The average rate per rupee for the decade 1861 to 1870 was 19 seers for wheat, 27.25 for barley, 14 for common rice, 7.25 for the best rice and 23.75 for *mandua*.

Prices rose very little during the years 1865 to 1883. The following statement shows the average price of certain agricultural produce per rupee during the years 1865-1883 :

Year	Paddy (rice Basmati) (in seers)	Wheat (in seers)	Gram (in seers)
1865-71	21.00	17.56	19.25
1872-76	23.19	18.87	21.62
1877-83	19.25	17.50	20.12

Generally 1896-97 was, in the plains, a famine year which raised prices in the district. The prices rose in 1904, being 17 seers to a rupee for wheat, 25 for barley, 9 for common rice, 5 to 5.5 for the best rice and 22 to 24 for *mandua* and in 1907, another famine year, the prices further rose and were 8 or 9 seers for wheat, 18 for barley, 6.50 to 8 for common rice, 2.50 for the best rice and 15 for *mandua* to a rupee.

With the outbreak of the First World War in 1914, a steady but gradual rise in the prices was recorded in the succeeding years. The price level was higher by 27 per cent in 1916 and by 75 per cent in 1928 over the rates prevailing in 1911, viz., wheat 11.5 seers, rice 7.5 seers, gram 16 seers and *arhar* dal 13 seers per rupee. From 1930 onwards, the prices again began to rule easy owing to the worldwide economic depression. They registered a marked fall in March 1930. By the end of that year, the prices of most of the staple foods fell by several seers to the rupee. Thereafter the decline continued gradually in the years that followed. The price level went down in 1934 by about 8 per cent as compared to that of 1911 and the downward trend continued till the end of 1936. Thereafter prices began to recover and by 1939, they registered a rise of 28 per cent over those prevailing in 1934.

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Towards the close of 1939, as a result of the commencement of the Second World War, the prices of almost all commodities suddenly shot up. The shortage became so acute in December, 1939, that wheat was not available in the city market for a number of days. The upward trend in prices persisted in spite of the measures taken by government in 1940 under the Defence of India Rules for the fixation of prices of essential commodities and the prosecution of those who indulged in speculation and profiteering. The price level in 1944 exceeded that of 1939 by about 138 per cent. In order to arrest further rise in prices, the price control scheme was introduced in the district in 1942. Wholesalers of food-grains were required to maintain a reserve of 10 per cent of wheat and gram, not to be disposed of without prior sanction of the district magistrate. The retail price of wheat for the town of Dehra Dun was fixed at 5.50 seers per rupee and wholesale price at 5.75 seers. 12 retailers were appointed to sell wheat to the consumers of the value of Rs 2 per individual at a time. In 1944, this scheme was re-organised in Dehra Dun town. The income limit for issue of rations was fixed at Rs 60 per month. A railway shop was also opened to cater to the needs of the railway employees. Ration shops were provided separately for the employees of the Forest Research Institute and College. Bulk supplies of wheat at wholesale rates were made to certain establishments such

as police and jail. From April 1, 1945, total rationing scheme was introduced in Dehra Dun town and wheat, rice and their products were sold only through ration shops in quantities fixed per adult and child to ration card holders. Persons residing outside the town of Dehra Dun felt great difficulty in purchasing these commodities. Five ration shops were, therefore, opened to cater to their needs also. One of these shops was allotted to a baker who supplied bread to those consumers who were not in possession of ration cards. In April, 1946, the total rationing scheme was introduced in the towns of Mussoorie, Rishikesh notified area and Chakrata. The austerity provisioning scheme was introduced in Jaunsar Bawar, Gangot Panditwari, Gujra and Malkot Gadool. The price of bread was fixed at three annas per bread of half a pound. The retail prices of wheat, rice and gram was fixed at 3.75 seers, 1.5 seers and 4.25 seers a rupee respectively.

During the year 1947 there was a sudden increase in the population of the towns of Dehra Dun and Mussoorie owing to the influx of displaced persons from Pakistan. These persons were mostly accommodated in Premnagar Camp, and ration shops were opened in this area and provision was made for free supply of food-grains to them. Because of non-availability of rice and adequate quantity of wheat people had to depend upon *atta* (flour) and coarse grains, like maize, barley and *bajra*.

From February 1, 1948, the total rationing scheme was converted into a partial rationing scheme, and the income limit was raised to Rs 100 per month except in case of displaced persons, and rationed food-grains were also allowed to be sold in the open market. This scheme, together with the austerity provisioning scheme, was withdrawn on May 15, 1948. As a result the prices of food-grains in the open market showed an abnormal rise and the partial rationing scheme had to be reintroduced from September 1, 1948. For the implementation of this scheme 62 relief quota shops were opened for the supply of wheat. The income limit was fixed as before at Rs 100 per month. *Atta* was also supplied to card holders through these shops. All government servants except class I officers were entitled to receive food-grains from these shops. From September 16, 1949, the total rationing scheme was re-introduced in the towns of Dehra Dun, Mussoorie and Chakrata and the cent per cent rationing scheme at Rishikesh. The total rationing scheme was withdrawn from the towns of Mussoorie and Chakrata in 1951 and from Dehra Dun town in 1952 and replaced by the cent per cent rationing scheme.

In 1953, prices of food-grains fell in the open market and the number of purchasers at the ration shops dwindled and so the rationing scheme was withdrawn. The prices of food-grains came down in 1954 touching levels so low in the following year that the government had to take measures to arrest further fall in order to avert hardship to the farmers. The average price of wheat in 1955 was 2 seers a rupee, that of rice and gram being 1.75 and 8 seers respectively.

From 1956 to 1962 the wheat release scheme was introduced in the district and 23 fair price shops were opened in the district for the sale of imported wheat, of the value of Rs 5 per individual at a time. In 1958, individual cards were issued and food-grains supplied against these cards. In 1959, family identity cards were prepared. Rationed food-grains were also supplied to residential institutions such as hospitals, police, jail, etc., at the wholesale rates. The wholesale price of wheat was fixed at Rs 15 per maund, and that of rice (II A) and gram at Rs 21.23 and Rs 16.69 per maund respectively. In 1960, the price of wheat remained the same but that of rice (II A) was raised to Rs 23.04 per maund (37 kg.). The retail price of wheat was fixed at 2.37 kg. a rupee and rice (II A) at 1.55 kg. a rupee. The price of wheat in the open market was 1.85 kg. a rupee, that of rice and dal *arhar* being 1.51 kg. and 1.68 kg. respectively.

In the beginning of the year 1963 the wheat release scheme was converted into the family identity card scheme and was enforced in the towns of Dehra Dun, Mussoorie and Rishikesh. Later on, the scheme was extended to the towns of Chakrata, Chouharpur, Kalsi and Sahiya. Family identity cards were issued to the residents of these areas. Supplies of food-grains such as wheat, *atta*, rice and coarse grains were made to the card holders through the fair price shops. The facility of supply of controlled food-grains was also extended to such centres where there were government projects and industrial units employing more than 300 workers, viz., Doiwala, Dhalipur, Dhakrani and Dakpathar. In some cases of natural calamity or abnormal rise of prices in the open market, *atta* and coarse grains were supplied in the rural areas also through fair price shops. The average retail price of food-grains in the town of Dehra Dun in 1965 was wheat 1.08 kg., rice 1.01 kg. and gram 1.12 kg. a rupee. The average yearly retail prices of important food-grains in the district from 1966-67 to 1970-71 were as follows :

Year	Rates in kg. per rupee		
	Wheat	Gram	Rice (common)
1966-67	1.08	1.35	0.96
1967-68	0.98	1.20	1.05
1968-69	0.89	1.02	1.20
1969-70	1.03	1.25	1.25
1970-71	1.01	1.20	1.22

The retail prices of certain essential commodities obtaining in Dehra Dun town in 1966-67 and 1970-71 are given in the statement below, indicating the comparative position :

Commodity	Retail price	
	In rupees per kg. 1966-67	In rupees per kg. 1970-71
Dal arhar	0.57	1.60
Ghee	10.00	18.50
Gur	0.68	0.95
Firewood	0.18	0.12
Mustard oil	8.80	4.55
Sugar	1.40	1.91
Kerosene oil 	0.62 per litre	0.70 per litre

Wages

Labourers formerly were either serfs of the zamindars or else poor cultivators living a hard life by taking to odd jobs at slack times. From 1822 to 1824 a skilled labourer in the district, such as master-mason, earned 3 annas a day, a bricklayer 2.5 annas and an unskilled labourer such as coolie earned 1.5 annas. In 1824, coolies' wages occasionally reached 2 annas a day or its equivalent in grain. In 1872, an ordinary field labourer received 2 annas a day and a coolie 2.5 annas. In 1886, Baker, the settlement officer noted the following about the wages paid to the labourers in the tea gardens. The season lasted from the middle of March to the middle of December and large labour force was required. The supply of labour was generally sufficient, but many of them were not residents of the district. Men were getting 2 annas a day, women an anna and a half and boys one anna. The planters have recognised the advantages of having a large number of coolies ready to meet any emergency and they therefore let a considerable portion of their land to tenants who grew their own crops. Rents were charged low, but the tenants were bound in return for this concession to work as coolies for fixed periods. In 1906, the average daily cash wage for an ordinary labourer in the rural areas of the district varied from 3 to 3.5 annas per day. Up to 1911, skilled labour was chiefly supplied in the forests from Delhi and the neighbouring districts of Punjab but the people of the district also began to show some interest in the work thereafter. The rates for different kinds of work were : for felling, one anna a tree, for sawing sal scantlings four inches by five inches, 8 annas per score

of running feet, and for sawing metre-guage sleepers four annas each. Skilled workers such as a *mistri* earned from 10 to 12 annas a day, a mason or a carpenter 8 to 14 annas, a blacksmith got higher wages and a *syce* (horse drawn vehicle driver) from 3.5 annas to 4.5 annas a day.

The wages for skilled and unskilled labour in the rural areas for certain years between 1906 and 1944 are given in the following statement:

Year	Wages in annas per day	
	Skilled labour	Unskilled labour
1906	8	2
1911	10	4
1916	12	4.50
1928	16 (Rs 1)	8
1934	12	5
1939	18.25	5.25
1944	40 (Rs 2 and 8 annas)	18.50 (Rs 1 and 2.50 annas)

With the rise in prices of essential commodities the wages also went up. In the urban areas the wages for unskilled and skilled labour rose from Rs 3 and Rs 6.88 per day in 1965-66 to Rs 3.90 and Rs 8.40 respectively in 1968-69, Rs 4.08 and Rs 9 respectively in 1969-70 and Rs 4.48 and Rs 9.20 respectively in 1970-71.

The wages for various agricultural operations obtaining in 1970 in the district are given in the following statement :

Job	Wages in Rs per day
Weeding	3.88
Irrigation	4.00
Transplantation	3.70
Ploughing	4.00
Carpentry	6.00
Blacksmithy	5.25

The wages prevailing in certain occupations at Dehra Dun in 1970 are given below :

Occupation	Unit of quotation	Wages (in rupees)
Gardener	(a) Per month (whole -time) (b) Per month (part-time)	115.00 40.00
Chowkidar	Per month	120.00
Wood-cutter	Per 40 kg. of wood	1.00
Herdsmen	(a) Per cow (per month) (b) Per buffalo (per month)	8.00 5.00
Porter	Per 40 kg. of load carried for a km.	1.25
Casual labourer	Per day	4.50
Domestic servant	(a) Per month, without food (b) Per month, with food	75.00 80.00
Carpenter	Per day	9.50
Blacksmith	Per day	10.00
Tailor	(a) Per cotton shirt (full sleeves) (b) Per cotton shirt (short sleeves) (c) Per woollen suit (d) Per cotton suit	3.00 2.00 75.00 25.00
Midwife	(a) For delivery of a boy (b) For delivery of a girl	15.00 10.00
Barber	(a) Per shave (b) Per haircut	0.80 1.00
Motor driver	Per month	200.00
Truck driver	Per month	250.00
Scavenger	Per month for a house with one latrine for one cleaning per day	4.00

GENERAL LEVEL OF EMPLOYMENT

According to the census of 1961 there were 68,535 cultivators and agricultural labourers in the district. The number of persons engaged in activities connected with live-stock, forestry, fishing and hunting was 15,506. As many as 1,217 persons were employed in mining and quarrying, 3,926 persons were engaged in activities connected with construction of roads, bridges, tunnels, etc., and 2,863 persons in providing electricity, water, gas and sanitation services. Trade and commerce offered employment to 12,311 persons and transport, storage and communications to 5,512. The public services employed 48,165 persons, of whom 18,442 were in government and quasi-government services, 8,554 in educational and scientific services, 1,176 in medical and health services, 1,100 in the religious and welfare services, 224 in legal services, 8,175 in personal services and the remaining in

other services. The various manufacturing projects employed 13,925 persons. Of these 2,317 were engaged in the processing of food-grains, 1,956 in the manufacture of wooden articles, 1,664 in the production of non-metallic minerals other than petroleum and coal, 730 in that of metallic goods including machinery and transport equipment, 886 in leather and its products, 3,691 in that of cotton, jute, woollen, silk and miscellaneous textiles and the remaining in other services.

Employment Trends

The following statement shows employment trends in both the private and the public sectors in the district at the end of the quarter ending September during the years 1966-70. The data relate only to those establishments which responded to the enquiry conducted by the employment exchange authorities :

Year	No. of establishments			No. of employees		
	Private sector	Public sector	Total	Private sector	Public sector	Total
1966	222	220	442	14,936	40,655	55,591
1967	216	230	446	13,876	40,169	54,045
1968	218	225	443	13,008	41,904	54,912
1969	213	239	452	15,109	42,865	57,974
1970	215	245	460	15,288	41,955	57,243

The following statement gives further details according to the work done :

Nature of activity	No. of reporting establishments		No. of employees					
			1969			1970		
	1969	1970	Private sector	Public sector	Total	Private sector	Public sector	Total
1	2	3	4	5	6	7	8	9
Agriculture, live-stock and fishing	16	17	—	1,579	1,579	—	1,574	1,574
Mining and quarrying	21	22	339	5,294	5,633	393	3,077	3,470
Manufacturing	75	76	5,048	6,231	11,279	5,051	6,673	11,724
Construction	26	27	4,615	4,137	8,752	4,759	4,224	8,983

(Contd.)

1	2	3	4	5	6	7	8	9
Electricity, gas, water and sanitary services	9	9	—	1,696	1,696	—	1,752	1,752
Trade and commerce	39	39	360	591	951	323	655	978
Transport and storage	16	14	132	2,866	3,048	173	2,988	3,161
Services (public, legal, medical, etc.)	250	256	4,565	20,471	25,036	4,589	21,012	25,601
Total	452	460	15,109	42,865	57,974	15,288	41,955	57,243

Employment of Women

The trend of employment of women workers is given in the following statement which shows the number of women employed in the private and public sectors during the year ending with December, 1970 :

No. of reporting establishments	460
No. of women employees in public sector	2,166
No. of women employees in private sector	2,793
Total number of women employees	4,959
Percentage of women employees to total number of employees in private sector	18.27
Percentage of women employees to total number of employees in public sector	5.16

The proportion of women workers in different spheres in the quarter ending with December, 1970, was as follows :

Spheres	Percentage
Education	38.44
Manufacturing	31.46
Services	11.18
Medical and public health	10.81
Transport	2.51
Mining and quarrying	2.50
Construction	2.42
Trade and commerce	0.88
Agriculture, live-stock, forestry, etc.	0.20
Electricity, gas, water, etc.	0.10

Unemployment Trends

The numbers of men and women who sought employment in different spheres during the year ending on December, 1970, are as follows:

Educational standard	Men	Women	Total
Post-graduate	50	10	60
Graduate	940	181	1,071
Intermediate	1,482	106	1,588
Matriculate	3,859	224	3,588
Below matriculate	2,856	25	2,881
Illiterate	987	155	1,092
Total	9,074	651	9,725

During the quarter ending December, 1970, the number of vacancies notified by Central Government to the exchange was 366, State Government 298, quasi-government bodies 50, the local bodies 6, and the private sector 25.

The district experiences a shortage of technicians, vaccinators, nurses and science teachers. Unskilled labourers and persons without previous experience and technical training were available in surplus to the requirement.

Employment Exchange

The employment exchange was established in the district in March, 1949. The following statement shows the assistance rendered by it during the years 1966-70 :

Year	No. of persons registered for employment	Nos. on 'live register'	Persons provided with employment
1966	17,157	7,788	3,858
1967	14,886	9,808	3,529
1968	17,852	10,285	2,987
1969	19,310	12,495	3,612
1970	19,276	19,467	8,814

The exchange introduced the employment market information scheme in the public sector in December, 1958 and in the private sector in December, 1960, to find out, quarterly, from public and private sector establishments, employing five or more persons, the number of persons employed by them and the number of posts under them that fell vacant during the quarter and the type of jobs for which the supply of qualified candidates was inadequate.

The vocational guidance and employment counselling programme is also being carried on by the exchange for boys and girls in groups as well as individually and to assist them in their placement. In 1970, 6,826 candidates participated in 276 group discussions and 113 individuals sought guidance. The number of guided applicants who secured jobs was 31.

NATIONAL PLANNING AND COMMUNITY DEVELOPMENT

Prior to the introduction of the First Five-year Plan, rural development work in the district was executed through better living societies whose activities were controlled and supervised by the district rural development association, established in 1938 by the rural development department. It had a non-official as its chairman and a sub-divisional magistrate as secretary. The work related largely to rural hygiene, construction of roads, establishment of libraries, construction of panchayat *ghars* and night schools for adults, and allied development activities.

In 1947, the rural development department was merged with the co-operative department and the district rural development association was replaced by the district development association which was substituted by the district planning committee in 1952, with the district magistrate as its chairman and the district planning officer as its secretary. The local departmental officers, members of the State legislatures and Parliament and some other local representatives, comprised the members of the planning committee. The block development committee constituted its counterpart at the block level. The resource of the development departments of agriculture, animal husbandry, co-operatives, panchayat raj, etc., were pooled and placed under the control of the district planning officer who co-ordinated the activities of these departments. Development activities were organised in the district through the agency of the district planning committee, financial help being received under the self-help and local development grants. The work was done in accordance with the felt needs of the people as expressed through resolutions of the Gaon Sabhas. *Shramdan*, meaning voluntary contribution of labour, was the key-note of this movement for rural reconstruction. The energies and labour of the people were devoted to the execution of concrete works of public utility.

The re-oriented programme of rural development started in the district on October 2, 1953, with the inauguration of the first community development block at Chakrata. At the block level, it was to be implemented through the block advisory committee with the block development officer as the co-ordinating authority, and was intended to create a

desire towards self-help among the people who now got an opportunity for thus providing for some of their keenly felt community needs.

In accordance with the policy of the government to include every village in the development programme, the district has been divided into four development blocks for the implementation of the Five-year Plan schemes. The following statement gives some information about these blocks :

Tahsil	Name of blocks	Date of inauguration	No. of Gaon-Sabhas	No. of nyaya panchayats	Population in 1961
Chakrata	Chakrata	2-10-53	31	7	31,505
Chakrata	Kalsi	26-1-56	23	6	31,097
Dehra Dun	Doiwala	26-1-55	39	10	79,791
Dehra Dun	Sahaspur	2-10-53	35	10	84,165

A Kshettra Samiti is responsible for all the development activities within a block. The block development officer acts as the executive officer of the Kshettra Samiti and is responsible for the proper implementation of the development programmes in the block. He is assisted by specialists of the rank of assistant development officers separately for agriculture, animal husbandry, co-operatives and panchayats, etc. At the village level, however, there is a general multipurpose worker, designated as *gram sewak*, who attends to every departments' activities in the villages under his charge.

CHAPTER X

GENERAL ADMINISTRATION

Until recently Dehra Dun used to be one of the four districts in Meerut Division, in charge of a commissioner, with headquarters at Meerut. With effect from 1975 it has now been placed in charge of the commissioner, Garhwal Division. The commissioner acts as the link between the districts placed under him and the government. He supervises the administration as well as the planning and development activities of these districts.

Sub-divisions

The district has been divided into three sub-divisions—Dehra Dun, Chakrata and Mussoorie—for purposes of revenue and general administration. Mussoorie subdivision lies within the boundaries of Dehra Dun tahsil. It has been made a separate subdivision for the administration of Mussoorie city only. Dehra Dun and Chakrata subdivisions comprise tahsils of the same names, with two parganas each.

District Staff

The district is in the charge of an officer designated as collector and magistrate for revenue and criminal administration respectively. He is also known as the district magistrate or district officer. He holds a key post and is the pivot of the district administrative machinery. He represents the government and acts as its chief executive in the district, being concerned directly or indirectly with the proper discharge of all governmental functions or public activity in his area. As collector, he is the head of the revenue administration, his main functions being to ensure the collection of all land revenues in full and in time and the maintenance of up-to-date land records of the district. He is in ultimate charge of the government treasury in the district.

As the district magistrate his main duty is to maintain law and order in the district, with the help of the magistracy and the police. Certain judicial functions discharged by the executive traditionally have now been passed on to judicial officers, placed directly under the district judge since April 1, 1974 when the executive and the judiciary have been separated, on the enforcement of new Criminal Procedure Code, 1973.

As district officer, he also heads the district planning committee which consists of the heads of various government departments in the district. His function is to co-ordinate the activities of the various nation-building departments and in this work he is assisted by an additional district magistrate (planning). As district magistrate it is his further duty to render all necessary help to people during natural calamities such as droughts, fires, floods, hailstorms and locust invasions and to assess the extent of damage caused, report it, in appropriate cases, to government and to distribute relief.

The district magistrate is also responsible for supervising the administration of excise, registration and jail departments. He is assisted by an additional district magistrate (executive), three sub-divisional officers, one for each sub-division, who also help him in revenue administration and the running of the general district administration. Each tahsil is in the charge of a tahsildar who resides at the tahsil headquarters. He is assisted by a number of *naib* tahsildars, *kanungos*, *lekhpals* and other clerical and subordinate staff. The treasury officer, the district supply officer and the town rationing officer, also assist the district officer in their respective spheres.

The administration of the police who are responsible to the district magistrate for the control and detection of crime and for the maintenance of general law and order in the district, is headed by a superintendent of police who is in over-all charge of the force, being responsible for its efficiency, discipline and the proper performance of its duties. His jurisdiction extends over the whole of the Dehra Dun district. For administrative convenience the district is divided into three circles each under the charge of a deputy superintendent called the circle officer. The three circles are divided into nine police-stations. Each police-station is placed under a subinspector called the station officer, except the police-stations of Kotwali and Rishikesh, each of which is under an inspector.

Another important pillar of public administration in the district is the judiciary, headed by the district and sessions judge, as the highest authority for administration of civil and criminal justice in the district. Criminal appeals and revisions and appeals against the decisions of the civil judge and of the *munsif* are heard by him. The district and sessions judge, Dehra Dun, is also the ex officio district registrar and exercises control over the office of the subregistrar of Dehra Dun and ex officio subregistrars of Chakrata and Mussoorie.

OTHER DISTRICT LEVEL OFFICERS

The other district level officers in the district under the administrative control of their respective departmental heads are :

- Chief medical officer
- Executive engineer, public works department
- District inspector of schools
- Sales tax officer
- Superintendent of jail
- Assistant district panchayat raj officer
- Assistant registrar, co-operative societies
- District cane officer
- District agriculture officer
- District employment officer
- District industries officer
- District information officer
- District live-stock officer
- District Harijan and social welfare officer
- Probation officer

CENTRAL GOVERNMENT OFFICES

Ministry of Finance

Income-tax Department—The income-tax office, Dehra Dun, which exercises jurisdiction over the district, works under the administrative control of the inspecting assistant commissioner of income-tax, Dehra Dun and consists of four wards each under the charge of an income-tax officer. There are three inspectors to assist the income-tax officer. Cases of appeal are addressed to the appellate assistant commissioner of income-tax, Dehra Dun, who has appellate jurisdiction over all the income-tax officers.

Central Excise—There is one superintendent for the district (under the administrative control of the assistant collector, customs and central excise, Saharanpur). He has two ranges called Dehra Dun I and Dehra Dun II, manned by one inspector each. There is also one inspector for gold control work and one inspector for preventive work.

Ministry of Transport and Communication

Indian Posts and Telegraphs Department—The postal division comprising Dehra Dun, Tehri and Uttarkashi districts has its headquarters in the charge of the senior superintendent of post-offices at Dehra Dun. In the head post-office the postmaster is assisted by a deputy postmaster, assistant postmaster and town inspectors.

Ministry of Education and Youth Services

Botanical Survey of India—This office has jurisdiction for floristic survey extending to the States of Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, the western and Himalayan districts of Uttar Pradesh and the Union Territory of Delhi under the control of a regional botanist. This is one of the five regional offices of the Botanical Survey of India which has its headquarters at Calcutta. Its object is to organise field exploration for a detailed floristic survey of the country, particularly of those regions which have remained unexplored or underexplored in the past. All groups of plants are covered in this survey. Dried specimens of plants duly annotated and named are preserved in the form of herbarium sheets.

Ministry of Railways

Railway—The Northern Railway traverses a large part of the district. The section falls under the jurisdiction of the divisional superintendent of railways with his headquarters at Moradabad. The Dehra Dun station is in the charge of a station master.

Ministry of Works and Housing

Central Public Works Department—The central public works department is under the administrative control of an executive engineer functioning as a divisional officer. The jurisdiction of this office extends to Saharanpur, Meerut, Najibabad, Uttarkashi, Joshimath and Paur Garhwal apart from this district. There are four subdivisions each under the charge of an assistant engineer for the execution of public works such as construction and maintenance of bridges and roads including drainage, sewage and water-supply works.

CHAPTER XI

REVENUE ADMINISTRATION

The major portion of the area covered by the present district of Dehra Dun remained under the rule of the Garhwal raja still 1804, when it was overrun by the Gurkhas. In ancient times the ultimate ownership of land vested in the king, who, after taking his share of the farmers produce varying from one-sixth to one-third, in cash or in kind, granted them protection of life and property.

Fiscal History of Dehra Dun Tahsil

The area covered by the Dun remained for long nearly desolate since Srinagar, the capital of Garhwal, was distant, and the road difficult, the rajas hardly exercised any effective authority over the Dun which was uninhabitable and lacked facilities of irrigation except near the rivers. By the 12th and 13th centuries some Banjaras settled there and gave their consent to pay tribute to the rajas but as they did not remain there for a long time, no organised system of land revenue could be evolved.

The rajas of Garhwal continued to enjoy almost full independence, with the exception perhaps of acknowledging nominal suzerainty of the emperor of Delhi, but without paying any tribute and supplying any contingents to him. General Hardwick writes : "In the reign of Akbar that prince demanded of the raja of Srinagar an account of the revenues of his raj and a chart of his country. The raja, being then at court, repaired to the presence the following day, and in obedience to the commands of the king presented a true statement of his finances, and for the chart of his country humorously introduced a lean camel, saying, this is a faithful picture of the territory I possess up-and-down (*uncha-nicha*), and very poor. The king being pleased with the frankness of the Raja exempted him from paying any tribute."

Some rajas levied new taxes like *suendi*, *suppa* and *chulkar*, which were fixed on the number of female heads in the houses and ovens in the home respectively. These taxes caused hardship to the people who were generally poor. The proceeds of property of persons dying heirless called *autali* were deposited in the king's treasury. The selling of slaves, both male and female and gold-washing were also sources of revenue. Each gold-washer paid Rs 1,000 a year in cash or in kind. According to Traill 'the principal source of the ordinary revenue of the sovereign' was 'offerings presented by subjects at the Hindu festivals'. Moreover, on certain occasions, such as the marriage of a member of the royal family, a general impost was levied on all the assigned lands.

Pradip Shah on becoming the ruler in 1717 took an interest in this region and the Dun enjoyed peace and prosperity. A number of Rajput and Gujar settlers reclaimed the waste land of the Dun and villages sprang up on all sides. The government demand was generally rated

from one-third to one-half of the produce. In 1729, there were about 400 villages and the gross collections amounted to Rs 95,000, but deductions on account of rent-free tenures were very large. In 1747, the Dun was assessed at Rs 97,465, of which a sum of Rs 42,945 was assigned in shape of revenue-free grants of religious establishments and individuals. The Garhwal rajas also derived a considerable revenue from the sal forests, collected as an excise duty on forest products. The prosperity of the region attracted the attention of Najib-ud-daula, the Rohilla governor of Saharanpur, who invaded and conquered the Dun in 1757. He adopted certain measures to improve the revenues of this area, such as digging of canals and wells and providing land to landless persons. Agriculture flourished and about 500 villages were established, resulting in the revenue increasing to Rs 1,25,000. On his death in 1770, Lalit Sah, who succeeded his father Dalip Sah, took little interest in the affairs of the Dun, which rapidly deteriorated and again became a wilderness, perpetually ravaged by various marauders.

In 1783, the valley was invaded by the Sikhs and the raja was compelled to buy peace by agreeing to pay a fixed annual tribute, amounting to Rs 4,000, in return for protection from future invasions. The Sikh tax-collectors were held in such terror that Forster, an English traveller, who happened to be present at the time, observed: "From the manner in which these men were treated or rather treated themselves I frequently wished for the power of migrating into the body of a Sicque for a few weeks."

Frequent raids from Rajput or Gujar chieftains did more mischief than the Sikh incursions. The Garhwal rajas having insufficient force to resist the invaders, were often forced to hand over a few villages in jagir to each of the offending chiefs. In this manner, Bahadur Singh, the Pundir Rana, actually got the fiscal management of the whole of Dun in 1787. The attack of Ghulam Qadir, the clash between the Sirmur and Garhwal rajas, the incursions of the Sikhs, Rajputs, Gujars and Marathas and the oppression of Hari Singh, the local representative of the Garhwal rajas, caused such a devastation that revenue was much reduced.

The Gurkhas came into possession of the district in 1804. Due to their oppression many of the inhabitants emigrated and the area under cultivation considerably declined. "The Gurkhas ruled with a rod of iron and the country fell in every way into a lamentable decay, the villages were deserted, the agriculture was ruined and its population decreased beyond computation. It is said that two lakhs of people were sold as slaves". According to Fraser, the Dun under the Garhwal rajas yielded to government a revenue of a lakh of rupees a year, but the Gurkhas "having much ruined it, never realised more than Rs 20,000 per annum".

Some of the Gurkha governors such as Bam Shah and Hastidal Chautariya took steps to improve the revenues. Hastidal put a high premium upon agriculture, tried to fix rents, made liberal advances and gave away whole villages at nominal rents of Rs 5 or so to various zamindars. Assessments were based on an estimate of the supposed resources

of the inhabitants rather than the actual capabilities of the land. Taluks were regarded as a means of personal emoluments instead of tenures held in trust. In case of arrears, the defaulter's assets and even his family were sold to realise the dues. Commenting upon the harsh measures adopted by most of the Gurkha governors in realising revenue, Williams wrote that they had a "contempt for life and thought less of a human being than of a cow or bullock, animals whose sacrilegious slaughter could only be expiated by the offender's death".

The district came in 1815 under the occupation of the British, who fixed the land revenue for two years, on the basis of produce, varying from one-third to one-half and in some cases to one-fourth thereof. Even this was a heavy levy for the cultivators, and very little revenue could be collected. The zamindars also raised their demands and number of villages were deserted.

In 1816, Calvert, the assistant collector of North Saharanpur, took charge of the Dun as assistant collector and was directed to determine the revenue of the Dun valley. He computed the total collections for the year 1222 Fasli at Rs 20,590 of which a sum of Rs 9,134 was derived from land revenue and Rs 11,456 from *sayar* (miscellaneous items including transit duties) realised at Dehra Dun and other subordinate posts. In the year 1223 Fasli, land revenue collections amounted to Rs 9,827 and *sayar* to Rs 12,688.

First Settlement—The first Settlement of the Dun began in 1816 and was made for a period of 4 years with the headmen of villages or representatives of village communities, on the basis of the average collections made in the preceeding years. The revenue demands fixed for 1816 (1224 Fasli), 1817 (1225 Fasli), 1818 (1226 Fasli) and 1819 (1227 Fasli) were Rs 11,244, Rs 12,020, Rs 12,048 and Rs 12,050 respectively. The assessments though light were not evenly distributed.

Second Settlement—This Settlement was made for 5 years in 1820, the revenue varying from year to year. In 1820 the demand was fixed at Rs 13,365, in 1821 at Rs 13,438 in 1822 at Rs 12,756, in 1823 at Rs 12,805 and in 1824 at Rs 12,966. Like the first Settlement it was based on an exaggerated idea of the assets of the district. The settlement officers were not able to make any careful inspections and they based their assessments on the rack-rents exacted during the early years of district management. These heavy early Settlements grievously retarded the progress of the district.

Third Settlement—This Settlement was carried out for a period of 5 years from 1825. The land revenue for the year 1825 and 1826 was fixed at Rs 13,570, and Rs 13,595 respectively, and for the remaining years at Rs 13,645. A sum of Rs 335, realised from Chandi pargana which was transferred to the Bijnor district, was also included in it. Shore, who was interested in improving the conditions of the people and their land, considering the poverty of the people, made liberal assessments. For the first time, village by village assessments were carried out. No village was assessed before it had carefully been inspected. The nominal assessment fixed was 8 annas for

kutchha bigha and 9 annas for a pakka bigha at the maximum, while in a number of villages it was not more than 2 annas a bigha

The position of *malaguzars*, under the Settlement, was for the first time recognised as identical with that of the zamindars of the plains, although they retained the name of *thekadars* or farmers of revenue and were not treated as lessees. Shore revived the controversy about the status of *thekadars*. He justly argued that the *thekadars* did not essentially differ in status from zamindars over the greater part of India at the time when the British occupied the country, and there was no reason why they should not receive the same privileges now with the provision that the farmers of a village newly formed, or deserted and re-peopled, should not obtain zamindari rights until the estate paid a revenue of Rs 50 a year and contained not less than 500 standard bighas of cultivated land. In such cases, to ensure the continuance of an estate in the same form he made a provision for "the estate being entailed on one son to prevent the subdivision of property and consequent impoverishment of families after a few generations". As Williams has observed : "Mr Shore, a liberal conservative, was strongly in favour of creating a rural aristocracy, with a permanent interest in the improvement of agriculture, by placing the so called farmers on the same footing as the zamindars of the plains and acknowledging their claims to a transferable proprietary right in the land".

Fourth Settlement—The fourth, a *royalwari* Settlement was made in 1880, for a period of ten years. The revenue demand fixed was Rs 16,155. Major Young was of the view that the cultivators should be recognised as proprietors. He, therefore, recommended that Settlement should be made directly with the cultivators and government should transfer proprietary rights to them, except for the *thekadars* of respectability and long standing who were to be given the title of *muqaddam* zamindars of all lands which they and their families held under their sway as *thekadars*. As a result, cultivators became zamindars while the original *thekadars* were relegated to the position of middlemen with a right to collect revenues and given a remuneration of ten per cent on collections. The title of *muqaddam* was to be made hereditary and *patwaris* were to be appointed. The scheme was sanctioned, and land belonging to each village having been separately measured out to each zamindars, including land under cultivation, houses and gardens, was assessed to 3 annas per kutchha bigha of 1008 square yards. Waste lands were also assessed at $\frac{1}{2}$ anna a bigha for the first year, one anna for the second, $1\frac{1}{2}$ annas for the third, 2 annas for the fourth and 3 annas for the fifth year, and could be taken up by the nearest cultivating proprietor on making an application through the *muqaddam*.

The defect of the early Settlements was that without recognising the *thekadars* as zamindars they were given unlimited and uncontrolled power. The farmers had no check on the management of their villages or in the treatment of the cultivators. Pointing out the disadvantages, A. Ross observed in his Report No. 110, dated June 12, 1850 : "they consisted chiefly in the minute subdivision of the zamindari right, accompanied by equally minute subdivisions of responsibility for the revenue". The ten years' Settlement of 1880 was sweeping

in its character and to a great extent practically inoperative. The rights conferred by it were little valued or understood and never assumed by the majority of cultivators. Each petty landholder considered himself independent of the *muqaddam*.

Fifth Settlement—This was the first regular Settlement carried out in 1840 for 20 years, the demand being fixed at Rs 19,264. The assessment continued at the rate of 3 annas per bigha. The Dun had been surveyed by Captain Brown in 1838-39, and the boundaries of every village determined. The survey, instead of the field measurement, was adopted for the assessment. The culturable, cultivated and barren land was measured and one-fourth of the culturable land was assigned free of assessment to every village for grazing purposes, the remaining culturable land being offered first to the old cultivators and then to other applicants on indefinite terms.

The Settlement was neither reported to nor sanctioned by the government. It had many defects. The uniform rate of assessment on lands which varied in quality specially in those *mahals*, as in *daeems* (hill *taluks*), produced great hardships. In the absence of joint responsibility the redistribution was nominal. Consequently, there was heavy assessment on some while the assessment was light on others, resulting in heavy remissions. No rules were laid down for the disposal of land allotted for grazing purposes. The assessments were calculated on the cultivated and occupied land according to the professional survey and not according to the *khasra* measurements which gave the area of each field. The *muqaddam* distributed the resultant excess revenue over the cultivators. The professional survey measurement showed a large amount of land as cultivated that was neither cultivated nor occupied but only culturable. Through this Settlement they were assessed to revenue but being not occupied by cultivating occupants the *muqaddam* could not persuade the cultivators to pay for what they were not enjoying. These lands were technically known as *shamilat*. The omission to define the meaning of 'grant terms' also caused great discontent and disappointment among the cultivators.

F. Williams, who was appointed as superintendent of Dehra Dun in 1843, exposed the mistakes of Col Young. H. Vansittart, who took office in 1843, also questioned the expediency and justice of the *rayatwari* system. He found that a large number of cultivators had not assumed the proprietary rights conferred on them in the Settlement of 1830 and said that they were satisfied with the position of a *maurusi* (occupancy) tenant. The government being convinced of the correctness of his views ordered that the Settlement be revised.

Revision of Fifth Settlement—Vansittart was invested with the powers of a settlement officer and ordered "to take up the case of each village, determine all the rights in it and hold a proceeding declaratory of these rights". He set to work in 1845 and concluded his operations before the end of the year. The assessments were lowered, tenured enquired into and zamindars' rights were conferred upon the old *malguzars* if they were able to prove their claims. The *shamilat* and *beshi* grievances were redressed. His measures were satisfactory and

beneficial but hasty and in some respects incomplete. His records were inadequate and he also failed to put on record the consent of the parties regarding changes in village constitution resulting from the resuscitation of old zamindars. This made a second revision necessary and this was undertaken and completed by the end of 1848. An entire re-measurement of each *mauza* according to the prevailing method, was carried out and the village boundaries demarcated by means of pillars. The hill *taluks* known as *daems* were surveyed for the first time and the papers of each *daem* forming one complete Settlement were prepared.

Sixth Settlement—Ross was ordered to complete the work of his predecessors. He remarked that the revision of the Settlement did not include the re-assessment of the district but only of such *jammās* as required alterations. The Settlement was sanctioned for a period of 18 years from 1848-49 to 1860-61. The revenue demand for the first year was Rs 20,770 and for the last year Rs 28,116. The increase in revenue was due to actual or assumed extensions in cultivation. No soil demarcation was carried out. The proprietary rights were determined in compliance with the instructions of the government, *khataunis* were prepared to record all cultivators settled since 1830 as tenants, and all settled previous to 1830 as under proprietors or tenants, provided they had ever exercised proprietary rights. Only 6 cultivators from all the 170 villages of the Dun desired to be recorded as subordinate proprietors. They were in fact, anxious to give up the proprietary rights conferred by the previous Settlement. The number of *patwaris* was increased to 20 and *lambardars* were also created.

According to Col Young ownership of land in this region vested in the king who could eject the tenants at his will. Ross held that there would be no development in the region unless the rights and interest of the *thekadars* and tenants were fully secured and protected. "It was", wrote Ross, "by no means an uncommon practice with the hill rajas arbitrarily to eject the old zamindars and confer the land upon perfect strangers, who were again liable in their turn to be ejected at the caprice of the sovereign power". He suggested that the best way to bring about reform would be to enquire into a record all the subordinate rights and interests of the tenants. Ross's Settlement finally established the zamindari system in the Dun.

Seventh Settlement—The Settlement operations commenced under the supervision of Manderson in 1860. The *khāsra* survey was completed in 1860-62. On his transfer, C.A. Daniell completed the work of assessment in 1864. His assessments were found to be too light and moreover he had not fixed any demand on the culturable waste and forest areas included in the village boundaries. In 1864, he was directed to revise the assumed average rates and, with a view to introduce a permanent Settlement, to examine every case where large tracts of waste lands in the forest were included in the village area and to assess them where they were inadequately assessed. He completed his work in 1866 and the Settlement was confirmed in the same year for 20 years. The system of assessment followed was to impose rates separately on three classes of *soil-omisan* (manured), *rausli-dakar* (common loam) and *sankra* (stony soil). The rent-rates varied according

as the soils were irrigated or unirrigated. The villages were again divided into three classes—good, bad and middling—and different sets of rates for each class of villages were devised. Forest lands were also assessed at rates varying from 4 annas to a fraction of one anna an acre.

This Settlement is notable in that for the first time a proper system of soil classification, assessment circles and circle rates was elaborated and the assessments were worked out on this basis. Forest area was also assessed in the Settlement for the first time and boundaries were laid down *de novo*. The Settlement was light but not too light. The climate of the region being bad and the soil shallow and stony, produced small returns and made it difficult to induce cultivators to settle there. The revenue demand was fixed at Rs 31,637 in 1866 and ultimately rose to Rs 38,695.

Eighth Settlement—The eighth Settlement was made in 1883 for 20 years. It was preceded by a cadastral survey. The revenue imposed was Rs 82,476, a sum of Rs 5,346 being revenue from forests. This Settlement resulted in an increase of 72 per cent over the expiring demand. Each field was reclassified according to its soil and productiveness. Rent-rates for the western Dun were proposed and sanctioned but they were not taken into account in assessing the villages.

Ninth Settlement—This Settlement was made in 1904-07, for thirty years. The actual revenue was fixed at Rs 93,367, which rose to Rs 1,14,286 after ten years. The assessment resulted in an enhancement of 81.6 per cent over the previous demand. A special feature of this Settlement was that an elaborate formula was devised for arriving at the assets of private forests and revenue amounting to Rs 8,112 was assessed on them. The soils were classified into *rausili* (good loam), *dakar* (good clay), first class *sankra* (inferior loam), and second class *sankra* (poor stony soil). Soils were further divided into irrigated and unirrigated. Assessment circles were delimited and standard cash and crop rent-rates for each class of soil were devised.

Tenth Settlement—Owing to the enormous rise in rents since the last Settlement, the principle that rates should not exceed one-fifth of produce value was violated, and a new Settlement for the reduction of existing rents became necessary.

The Settlement was made for 40 years, the proposed revenue amounted to Rs 1,39,795. Twelve assessment circles based on topographical conditions combined with facilities for irrigation were formed. The Settlement operations began with a revision of maps and records. Out of 419 villages in non-alluvial area, 180 were fully surveyed, 19 were surveyed in part, and the correction of maps was carried out in 220 villages but complete attestation was made of all *khatauni* slips. During the attestation proceedings a large number of disputes were settled summarily. The rent-rates of 19,435 *khata*s were abated, the soils were classified in *kachiana* plus (irrigated areas for growing vegetables), *kachiana* (for gardening of a permanent nature), *goinda* I and II (for homeland cultivation), *rausili* I (for superior crops) *rausili* II (soil close to forest). Every effort was made to maintain the balance

between landlord and tenant in assessment. Attempts were made from time to time to remove the defects but it was found impossible to restore the rights of the small cultivators who had been exploited or to remove the new class of landlords that had come into existence. The British authorities settled not with the cultivators but with the headmen or representatives of village communities who were powerful enough to preserve order and could collect revenue without trouble. The demand was at times exorbitant and was frequently revised and enhanced. The government had only one method of recovering arrears of revenue, which was to dispossess the *malguzars* and sell the estates in auction to the highest bidder.

Fiscal History of Jaunsar Bawar

The hill pargana of Jaunsar Bawar, formerly part of the territory of the raja of Sirmur, is included in Chakrata tahsil. Jaunsar consists of Chakrata and the southern portions of the pargana, while Bawar forms the area between Chakrata and the Tons valley. The rock edicts of Asoka at Kalsi indicate that in the 3rd century B.C. this tract was a populated area, and lay in Asoka's empire. The king's share (*bhag*) of the produce, was normally fixed at one-sixth.

Before the commencement of British rule, when this pargana formed part of the territory of the Sirmur rajas, an indigenous revenue system prevailed in Jaunsar Bawar, revenue being collected by the *sayanas* and *chauntras*. There were two kinds of *sayanas* or headmen, the village *sayana* and the *sadar* or *khat sayana*, the former being subordinate to the latter and appointed by him. The duties of a village *sayana* combined those of a *mukhiya* and a *lambardar* of the plains. The pargana was divided into *khats* (units corresponding to the Kumaon *pattis* or group of villages), each presided by a headman known as the *khat sayana*, who was generally an intelligent member of some leading family. The office was hereditary. Influential *sayanas* were called *chauntras*, and occupied an important position. They were the virtual rulers of the areas under their control and owed allegiance directly to the king and were responsible for the collection and distribution of the revenue, which they collected from the *sadar sayanas* of the *khats*, who in their turn collected it from the village *sayanas*. Revenue was fixed for the whole of the pargana arbitrarily in a lump sum, which was distributed by the *chauntras* over the *khats* and redistributed by the *sayanas* among individuals. They were jointly and severally responsible for the entire assessment. The *khat sayanas* received an allowance of five per cent of the collections, known as *bisaunta*.

The revenue system of the pargana had two distinguishing features as compared to the system prevailing in the plains. First, revenue was not fixed on land alone but on the general resources of zamindars, which included the number of animals possessed by the family and produce of land including walnuts, apriots, etc. Secondly, it was fixed arbitrarily at a lump sum and not on the basis of individual family contributions.

After its occupation by the British in 1815, Jaunsar Bawar was placed under the charge of Captain Birch who was subordinate to the Resident at Delhi. No immediate change was made except introduction of four annual *kists* instead of two.

The entire pargana had one banker who stood *malzamin* (surety) for the due and regular payment of government revenues, since the beginning of the Settlement.

First Settlement—The first Settlement was made for a period of two years from 1815-16 to 1817-18. Revenue demand was based on the tribute exacted by the Garkhas and amounted to Rs 16,247 a year, or Rs 18,000 including allowance of *sayanas* and *chauntras* and customs on all goods passing out of the pargana through Kalsi.

Second Settlement—The second Settlement was made for a period of three years from 1818 to 1821, the demand being fixed at Rs 17,000.

Third Settlement—The third Settlement was made for the next three years, 1821 to 1824. Captain Young was instructed to keep the assessments low and his demand was exactly at the same rate as in the previous Settlement. He summoned to Kalsi all persons liable to taxation; every man was given a list of the dues payable by him and warned to pay nothing more in order to check the malpractices of the *sayanas*. Of the total revenue, Rs 1,501 accounted for customs, leaving a balance of only Rs 15,500 for land revenue. The old system continued to work well and all the collections were made without any coercive measures being adopted or a revenue officer being sent to any of the villages.

Fourth Settlement—This Settlement was made for a period of 3 years ending with 1827 and the revenue was fixed at Rs 18,701 a year, including Rs 1,601 derived from customs, stipends paid to *chauntras* and *sayanas* amounting to Rs 1455. In 1827, it increased by Rs 750 as a result of the auctioning the excise revenue to the highest bidder. The Settlement was then extended for a further period of 2 years.

In 1829, Jaunsar Bawar became an integral portion of the Dehra Dun district and Major Young superintendent of the Dun, assumed charge of this pargana as well.

Fifth Settlement—Submitting his proposals for this Settlement, Major Young observed : "The system which has prevailed for the last eight years is well-suited to the genius of the people and more certain of giving satisfaction than if we were to assimilate our proceedings more to the usage of the plains". He further wrote : "The sum total which the country is capable of yielding is gathered from the records in office, and a correct knowledge of what these district have been assessed at under former governments, as well as since they came under British authority, taking into consideration the present circumstances of the people, the nature of the past season, increase or otherwise, population, and cultivation, the state of the markets, and briskness of trade. These when clearly ascertained are made known by the executive officer to the *chauntroo*, or four representatives of the people, who from time immemorial have had the principal management of assessment and collection.

When the agreement between the executive officer and the *chauntroo* is concluded and registered, it is submitted to the *sayanas* or representatives of *khats* of which there are thirty-five, who have hitherto assembled at Kalsi for the purpose, and being well acquainted with each others' resources, they soon agree to bear a certain portion of the tax which is to be levied. This agreement also having been registered, it is submitted to the *sayanas* of the villages comprising the *khats*, who make a more minute division, there being 450 villagers."

The *chauntras* and *sayanas* came forward with an offer of an advance of Rs 1,000 on the expiring demand of Rs 17,000. Their offer was accepted and the Settlement of the land revenue for Rs 18,100 for a period of five years was sanctioned.

The existing arrangement worked well. The whole of the revenue for the last five years was realised without any complaint or engaging even a *chaprasi* for revenue duties.

Sixth Settlement—This Settlement was made for 15 years, from 1834-35 to 1848-49. The net amount of gross revenue, including customs and cesses, amounted to Rs 21,412.

Before the expiry of the Settlement certain difficulties arose. Previous to the amalgamation of this pargana in Dehra Dun district an officer styled as *diwan* was stationed at Kalsi, who performed all the duties of an *amin* and a tahsildar, and was sent to Dehra Dun as tahsildar in 1830. Meanwhile, Din Dayal, the old *malzamin*, died. A quarrel arose between his son and the *chauntras*. The surety was accused of ruining the country by charging excessive interest and the *chauntras* were accused of under-assessing their own good *khats* and transferring the burden to poorer *khats*. To remedy this state of affairs redistribution of land revenue became necessary and a new Settlement was ordered.

Seventh Settlement—A regular Settlement was made for 10 years from 1849 after an enquiry into the condition of each *khat* and its villages, the gross assessment amounting to Rs 19,750. The institution of *chauntras* was abolished and the management of each *khat* was henceforth to be carried out by its own *sayana*, the *khat sayana's* allowance being confirmed at five per cent of the collection. Preparation of a Settlement *misl* for each *khat*, corresponding to the records in a regularly settled district, was introduced. The fiscal duties of *chauntras* fell on the *sayanas* of *khats* and the joint responsibility of the land owners for payment of revenue was limited within the *khat*, which became in fact a *bhayachara* estate. The measures worked satisfactorily and no case of permanent default occurred.

At the same time Ross compiled a code of laws and procedure derived from popular customs and traditions, known as *Dastur-ul-amal*, initiating certain general principles of revenue for the use of local *panchayats*. It recognised and standardised existing local conventions with regard to land tenure and revenue, the duties and privileges of the *sayanas*, and the inter-village and inter-*khat* relations. It laid down

that revenue be fixed on the general resources of landholders as well as of the land. All trees were declared to be the property of the government. Landholders were given power to cut wood for making ploughs or for use as firewood, but they were not allowed to sell it. If affirmed government's control over the village community as well as over the land and forest and also helped the villagers to manage village affairs according to a common standard. The *khats* largely relieved themselves from debt, but still the condition of the pargana was not satisfactory.

Eighth Settlement—The eighth Settlement was made for ten years ending in 1870-71. Though the *khats* got relief from debts during the previous Settlement, the condition of the pargana had remained so unsatisfactory that it was not deemed proper to increase the revenue, but only to redistribute it. It was the first attempt to measure cultivated land which approximated to 21,603 acres of which 164 acres were held revenue-free. The gross revenue was fixed at Rs 21,525 and the land revenue at Rs 18,695 which at the end of the Settlement rose to Rs 19,679.

Ninth Settlement—The Settlement was revised and extended up to 1873. A special feature of this revision was the demarcation of *khats* and their boundaries in relation to the government forests. The cultivated area also was measured and maps were prepared on the scale of one inch to twenty yards, showing the area of each field. Revenue demand with an increase of thirty-four per cent on the previous demand was assessed at Rs 26,385.

Under the existing arrangement, the *sayana* of each *khat* was informed of the revenue demand required by the government, and this he distributed over each village within his jurisdiction. The new arrangement provided also for a report by the tahsildar on all items in the *phant-bandi* (distribution roll of revenue) which was sent to the superintendent for orders before April every year. This was a special feature introduced by the Settlement of 1873.

Atkinson wrote "On the whole the attempt to follow out the procedure adopted in the plains was not a success, the resolution to insist on regular rent-rates, revenue-rates and classification of soils resulted only in failure, gave an infinity of trouble and left behind it not a single statistics on these subjects and could not be relied upon."

An elaborate system for determining the assets of each *khat* was, therefore, devised, and rent-rates were fixed on the consideration of the land and the market price of its produce. For irrigated land rent-rates were Rs 4 for an acre, for first class dry land Rs 2 and for second class dry land 13 annas 4 pies for an acre. A demarcation of forest boundaries was also effected in 1873, and the *phant-bandis* prepared in 1874.

Tenth Settlement—The assessment of 1873 had over assessed some of the *khats* and doubts were expressed as to the advantages of *sayanachari* Settlement and therefore Ross was deputed in 1883 to revise the Settlement. The *sayanachari* system was recommended to be continued because people preferred it, but some check was to be

placed on the *sayanas*. Government took over the right to assess and to revise the revenue payable by each cultivator to the *sayanas*, although, the *khat sayanas* continued their duty of collecting the revenue. With the exception of *khat* Haripur Bias, where a *khatauni* was also maintained, the only annual land records maintained in the pargana were the *phant-bandi* and the *siyaha*. A standard *phant-bandi* was suggested to be drawn up. Revenue was assessed not only on the area of culturable land, but other assets also such as the number of members of a family able to cultivate, the number of cattle, sheep and goat, and area covered by intermittent cultivation as *khil*. This tax resembled a circumstance and property tax. The result of the revision was that only in 15 of the 38 *khats*, which were found over assessed, revenue was reduced and the demand for the whole pargana, which was Rs 29,495 previously, was reduced to Rs 27,495, and the Settlement was confirmed for twenty years.

Demarcation and classification of the forests was also carried out, with the result that *sayanas* were granted more rights in forests of the third class.

In 1949-53, the work of revision of records was taken in hand but no Settlement operations took place till the Jaunsar-Bawar Zamindari Abolition and Land Reforms Act, 1956, was enforced.

Eleventh Settlement—This Settlement was made from 1957 to 1959. The operations began with correction of maps which were brought up-to-date and preparation of the latest annual *khasra*. The entire *nautor* area was surveyed and the class of its soil was determined and up-to-date *khewat* and *khasra* were also prepared. There was no change in the land revenue which remained as before. It was for the first time distributed among the zamindars in accordance with rent-rates on the basis of the land held by them. Consequent upon the enforcement of the U.P. Zamindari Abolition and Land Reforms Act in Dehra Dun tahsil in July, 1952, and in Chakrata tahsil in 1961, fresh Settlements were made. The net land revenue demand in 1971 came to Rs 6,46,574 and the Vrihad Jot Kur and canal demand under the integrated collection scheme came to Rs 15,403 and Rs 6,69,305 respectively.

Waste Land and Revenue Free Grants

Waste land grants form an important feature in the fiscal history of Dehra Dun. Originally, in 1838, there were 9 such grants, named the Attica or the Attie Farm, Arcadia, Markham, Innisfail, Endeavour farm, Hopetown (the largest of all), Kargi Baghaut, Bharuwala and Naglah; of which two, Markham and Endeavour, were in the eastern and the rest in the western Dun. They were conferred on civilians, soldiers and merchants. The total area of the grants was 72 sq. miles. These grants were made on generous terms, and the grantees were allowed 20 years time to clear the whole of the waste land held under the grant, excluding barren land. No rent was to be realised for the

first 3 years and a progressive rental was fixed for ten years when it reached its maximum of 12 annas 6 *gandas*. Long before the confirmation of the grants in 1838, an area of 600 acres was under the plough and 2,000 to 3,000 acres were expected to come under cultivation in tracts where there was a forest a year before. But in 1842, the British government held that grants of land within their own jurisdictions to non-residents and non-cultivating Europeans were contrary to the instructions conveyed in an early despatch of 1838 and cancelled them, the result being that all covenanted officers were required either to relinquish their interest in the grants or to resign from the service. The grants were, therefore, sold at a very low price. In 1850, the Court of Directors and the Government of India realised the injustice caused by their order and allowed the grantees a compensation of over a lakh and a half rupees. Despite the failure of the enterprise, both Europeans and Indians again came forward to accept the waste land grants on the previous terms. These small grants were called *rasadi*, but due to their progressively increasing revenue rates, none of them eventually proved successful.

The Mahant of the temple of Guru Ram Rai in Dehra Dun held the villages of Dehra Khas, Dhartawala, Mihunwala, Panditwari Rajpur and Chansari free of revenue. Dhubhalwala was dedicated to the temple of Badrinath, Prempur and Jakhan to that of Kedarnath, Risikesh to Bharatji temple, and Gorakhpur and Jogiwala to the Gorakhnath temple. All these estates had been granted either by the Garhwal rajas or by the Gurkhas.

Besides these, there were 49 revenue-free villages in the Dun, comprising 58,168 acres, of which 18 were originally waste land grants in which revenue was afterwards compounded under Lord Cannings' rules of 1861 and 1865.

Three grants were for services rendered in the uprising of 1857, four were personal grants while 24 were ordinary *muafis* of a religious nature. All such grants have since lapsed and have been assessed to revenue.

Land Tenures

The land tenures in the Dun resemble the tenures in the neighbouring hills and plains in character, while those in the parts inhabited by the ancestors of the present Rajputs, Gujars, etc., were more similar to the land tenures prevailing in the neighbouring hilly regions. Quite different from *bhayachara* they were pure zamindari, *hissadari*, *pattidari*, and imperfect *pattidari* tenures. The government of the day was the proprietor of all land and persons engaged for collecting revenue of one or more villages were called *thekadars* or *malguzars* who, without enjoying the title of zamindars, exercised all their rights and privileges. In villages in which emigrants from the hills settled down, there were tenures of pure zamindari *taluks* (group of several villages) which were cultivated by a community of zamindars, everyone possessing separate and independent proprietary rights but all jointly responsible for the revenue assessed on the *mahal*. In the first decade of the twentieth century the revenue-paying and revenue-free *mahals* of the

Dun were mostly held as single zamindaris, joint zamindaris or *pattidaris*. The tenures of villages of the hills had broken down and these tenures were similar to pure *bhayachara* tenures of the plains. A tenure peculiar to the Dun was known as hill *taluks*. Originally hill *taluks* were similar to the *khats* of Jaunsar Bawar, the *taluks* being a group of villages, each village presided over by a headman as *sayana* who was subordinate to the superior *sayana* of the whole *taluk*. Each cultivator possessed the right of transferring his holding. In the beginning there were ten such *taluks*. Cultivators were also divided according to the length of tenancy as *maurusi* and *gair maurusi*.

The pargana of Jaunsar Bawar, excluding the Haripur Bias *khat*, where the tenures were similar to those existing in the Dun, possessed a peculiar tenure system of *khats* and *sayanas*. The land tenures in vogue in the pargana were different from those obtaining in the plains. The village was the revenue unit, presided over by a headman or village *sayana*, subordinate to the *khat* or *sadar sayana*, who was responsible for collecting the revenue. The village community consisted of a body of proprietors, each of them cultivating his own land. The power of alienation was governed by the *Dastur-ul-amal*. Those cultivators who had the right of transferring their holdings were called *maurusi* or proprietors. The *gair maurusi* cultivators or the tenant could dispose of his land only to the zamindar whose land he cultivated.

Though the system of land tenures in the Haripur Bias *khat* is very closely approximate to that of Dehra Dun, it did not enjoy the rights conceded to tenants of Dehra Dun tahsil, because they were governed by the same rules as the rest of Jaunsar Bawar. They could be ejected at will, their rents were arbitrary and they had to pay various taxes levied by the zamindars.

There was a sharp rise in the prices of food-grains during the Second World War (1939-45), which benefited the cultivators. The landlords made corresponding enhancement in the rents payable by non-occupancy tenants and tried to eject those who failed to pay the dues, replacing them by new tenants. As a result the farmers started campaigning for security of tenure and reduction of rent.

With the formation of a popular government in 1937, the United Provinces Tenancy Act, 1939 (Act XVII of 1939), had been passed, to give uniformity to the law regarding tenancies but it applied only to tahsil Dehra Dun. The U. P. Agricultural Tenants (Acquisition of Privileges) Act, 1949 (Act X of 1949) gave immunity to a tenant from ejectment if he paid ten times the annual rent of the holding to the government, and his rent also was reduced to half.

Abolition of Zamindari System

The U.P. Zamindari Abolition and Land Reforms Act, 1950 (Act I of 1951) abolished the zamindari system and replaced the multiplicity of tenures existing in the Dehra Dun tahsil by only three classes the *bhumidhar*, the *sirdar* and the *asami*.

The conditions obtaining in Jaunsar Bawar are peculiar and it was not found possible to apply the above Act to this area without making substantial changes in it. Consequently, the Jaunsar-Bawar Zamin-dari Abolition and Land Reforms Act, 1956 (Act No. XI of 1956) was passed on January 18, 1956, and enforced on July 1, 1961, introducing land tenures similar to those introduced in the rest of the State, acquiring the rights of zamindars in land held by tenants, with certain exceptions and distributing land revenue assessed on each *khat* among its landholders. Every intermediary, whose right, title or interest in any estate was done away with under the provisions of the Act, became entitled to receive compensation. The total amount of compensation assessed in tahsil Chakrata was Rs 3,00,544 of which a sum of Rs 27,893 has been paid in cash and bonds to 2,875 intermediaries. The total amount of compensation assessed in Dehra Dun tahsil was Rs 48,95,063 of which Rs 37,86,006 was paid in cash and bonds to 10,339 intermediaries up to 1971.

Rehabilitation grants amounting to Rs 25,64,800 in cash and Rs 71,508 in bonds were also received by 1,396 intermediaries. Under the Act, the intermediaries became *bhumidhars* in respect of their *sir* (not sublet) and *khudkasht* lands and groves. Certain other tenure-holders also acquired the same status in lands under their cultivation provided certain specified conditions were fulfilled.

In 1970-71, the *bhumidhars* had 71,071 holdings in an area of 12,362.7 hectares, *sirdars* 42,651 holdings in an area of 9,367.2 hectares and *asamis* 73 holdings in an area of 13.5 hectares.

The *bhumidhars* and *sirdars* have been made jointly and severally responsible for the payment of land revenue to which the entire village is assessed. The total amount of land revenue from Chakrata tahsil was Rs 36,403, that from Dehra Dun tahsil being Rs 3,97,469 in 1878 Fasli (1970-71).

The Act also established *gaon samajs* for the management of lands not comprised in any holding or grove forests within the village boundaries, tanks, pools and fisheries, *hat*-bazaars (markets), fairs and pathways and *abadi* (habitation) sites, and other sources of income vested in the *gaon samaj*. *Gaon samaj* can also admit new tenants to the land vested in it. The functions of this body are now performed by the *gaon sabha*. In 1971, there were 226 *gaon sabhas* in the district, 54 in Chakrata tahsil and 172 in Dehra Dun tahsil.

Collection of Land Revenue

Prior to the abolition of the zamindari system, collection of revenue was made through *lambardars* in the Dehra Dun tahsil and through *sayan* in the Chakrata tahsil, at a commission of five per cent of the collection. Since zamindari abolition, land revenue is collected directly from *bhumidhars* and *sirdars* by the government under the integrated collection scheme through 19 *amins* whose work is supervised in the district

by 4 *naib* tahsildars. The ultimate responsibility for collecting land revenue is that of the collector.

Survey, Settlement and Resettlement

The next Settlement is to take place 40 years after the date of vesting and the interval between the succeeding Settlement will again be a period of 40 years, except in the case of precarious and alluvial areas.

LAND REFORMS

Relations between Landlords and Tenants

Dehra Dun Tahsil—The present status of the cultivators in the district is the result of a long evolutionary process. In ancient times there does not seem to have been any intermediary between the king and the cultivator. The right of property vested in the cultivator. According to Manu, 'proprietary right in the soil was declared by law to be acquired by clearing the land from the jungle and bringing it under cultivation'. The king settled directly with the cultivators, who paid him a portion of the produce of their land, varying from one-fourth to one-twelfth, depending upon the nature and productiveness of the soil; generally it was one-sixth. The king in return, ensured them protection from external invaders and was responsible for maintaining peace in the region. Royal farms were cultivated either directly or leased out to tenants on the basis of division of crops.

In the late medieval period, invaders such as the Rohillas, Sikhs and Gurkhas exacted tribute from the Garhwal rajas who collected revenue from the cultivators. The Garhwal rajas possessed not only the sovereign right over the land but also the right which zamindars had over the land in their possession and in that of their *asamis*.

Under the Gurkhas revenue was fixed arbitrarily rather than on the actual produce. The assignments were fixed according to an estimate of the supposed resources of the inhabitants and they were realised vigorously. "Balances", as G.R.C. Williams wrote, "therefore, frequently accrued, to liquidate which the effects or even the families of the defaulters used to be sold."

The East India Company, after occupying the Dun region, tried to realise as large a revenue as possible "to enable it to carry on its war of conquest and furnish large dividends to its shareholders."

Attempts were made from time to time to remove the defects in the administration of revenue but it was found impossible to restore the rights of the numerous small cultivators who had been exploited or to remove the new class of landlords that had come into existence. The British authorities settled not with the cultivators but with the

headmen or representatives of village communities, who were powerful enough to preserve order and could collect revenue without trouble. The demand was often exorbitant and was frequently revised and enhanced. They adopted only one method of recovering arrears of revenue which was to dispossess the *malguzars* and sell the estates in auction to the highest bidder.

During the early Settlements, assessment of revenue was based on past collections, and despite some landlords forcing out the occupancy tenants by unjust methods, relations between landlords and tenants were generally good, the old Rajput zamindars being particularly indulgent to their tenant.

The British held that property in the soil vested in the sovereign or the zamindar. Rent-collectors, who had subsequently developed into zamindars were therefore, given proprietary rights, depriving small cultivators of the rights which they had enjoyed over the land for hundreds of years, and reducing them to the position of tenants-at-will, which led to economic deterioration and decay of agriculture. For over a century, the trend of tenancy legislation was to bring about a radical change in the structure of the tenure systems and to confer more and more rights on the tiller of the soil.

The first Tenancy Act was the Rent Recovery Act, (Act X of 1859) which was primarily meant for the Presidency of Fort Williams (Bengal), but applied also to the North-Western Provinces. It provided for the creation of certain rights in favour of cultivators if they had remained in cultivatory possession of their land continuously for 12 years. The North-Western Provinces Land Revenue Act, 1873 (Act XIX of 1873) recognised ex-proprietary tenants. The North-Western Provinces Rent Act, 1881, as amended by Act XIV of 1886, created occupancy, fixed rate ex-proprietary and non-occupancy tenancies, the first two being heritable and transferable but the last type had no rights except to cultivate the land till the agreement between the tenant and the landlord lasted. The North-Western Provinces Tenancy Act, 1901 (Act No. II of 1901) and the Agra Tenancy Act, 1926 (Act III of 1926) progressively improved the condition of the tenants by giving them various facilities. The United Provinces Tenancy Act, 1939 (Act XVII of 1939) was a uniform tenancy legislation for the whole province, and provided security of tenure, conferred heritable but not transferable rights, and ensured freedom from enhancement of rent except at the time of Settlement. The rent-rates were fixed. The Act restricted further acquisition of *sir* right by landlords and prohibited forced labour and *nazrana* (premium). Tenants were given the right to make improvement on their lands, build houses for their residence and sheds for their cattle. While the Act provided protection to tenants to a considerable extent, the zamindars could still be great impediments to the prosperity of the cultivators. The Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950 (Act I of 1951) passed on January 16, 1951 and enforced in the district with effect from July 1, 1952, accordingly raised the status of an actual cultivator to that of an independent peasant proprietor with permanent and heritable rights.

Jaunsar Bawar—During the rule of the Sirmur rajas in Jaunsar Bawar, the village community was a body of cultivating proprietors. Each zamindar cultivated his own land and there were very few tenants, who were called *pahikash*. They usually possessed too small holdings to be sufficient for their needs and were, therefore, under the necessity of taking on rent extra land from other persons.

People who took land from others for cultivation had no chance to acquire any permanent rights. They were tenants of the village community rather than those of individual zamindars, and obtained land in lieu of services rendered by them to the community. These tenants were Bajgis of the village temple and the village Koltas. This is why Ross classified the zamindars as *maurusi* cultivators in the *Dastur-ul-amal*. The *maurusi* (occupancy) cultivators had proprietary rights but the *gair maurusi* (non-occupancy) were mere tenants who could dispose of their land only to the zamindars whose land they cultivated. The *sayanas* had the power to make them cultivate their lands or take away the land from them. The *sadar sayana* held the position of an ordinary zamindar of the plains. Absence of cultivating tenants characterised the agricultural population of Jaunsar Bawar. Nearly all the zamindars either cultivated their own holdings themselves, or did so through hired labourers. Only in the Haripur Bias *khat* did the landlords receive rents in cash or kind. The labourers who cultivated the lands of zamindars gradually had been reduced to the position of mere serfs, and were mostly indebted to the zamindars. They had no right to own or reclaim any land as this was barred by the *Dastur-ul-amal* or *Wajib-ul-arz*. They could also be transferred from one landlord to another.

The Jaunsar Bawar Enquiry Committee appointed in 1939, suggested that notwithstanding any provision in the *Dastur-ul-amal* or *Wajib-ul-arz*, the *Koltas*, *Bajgis*, etc., should be allowed to own land and break up *nautor* (reclaim land from waste) and occupancy rights should be given to every tenant who had been holding land continuously for seven years or more.

The *khat* Haripur Bias (Jaunsar Bawar pargana) Tenants' Protection Regulation, 1940 (U.P. Regulation No. 1 of 1940) and the Jaunsar Bawar pargana (excluding *khat* Haripur Bias) Tenants' Protection Regulation, 1949 (U.P. Regulation No. 11 of 1949) were passed to stop ejection of tenants, and the Jaunsar Bawar pargana (*sayanas*) Regulation, 1948 (U.P. Regulation No. 1 of 1949) to regulate the appointment and duties of *sayanas* in the pargana. In order to provide for security of tenure and for the preparation of land records, the Jaunsar Bawar Security of Tenures and Land Records Act, 1952 (Act No. VI of 1953) was enacted. The Jaunsar-Bawar Zamindari Abolition and Land Reforms Act, 1956 (Act XI of 1956) which was enforced in 1961, abolished the intermediaries and replaced the tenures existing in the pargana by those of *bhumidhars*, *sirdars* and *asamis*, as in the rest of the State.

With the abolition of zamindari in Dehra Dun district the system of land tenures has been simplified. The actual cultivator is secured

in the enjoyment of the fruits of his labour with no possibility of ejectment; so long as he pays the land revenue he is free to invest as much as he likes in improving his holdings without any apprehension of his being deprived of the enjoyment of his land. A sense of social responsibility has begun to develop in them and the intermediaries, who exploited others or lived on the forced and unpaid labour of others, have been compelled to work for themselves.

The U.P. Bhoodan Yajna Act, 1952

Under the Bhoodan movement an area of about 60 hectares of land was donated in the district and an area of 4.04 hectares distributed among landless persons.

Imposition of Ceiling on Land Holdings

The United Provinces Agricultural Income Tax Act, 1946 (Act III of 1949) was replaced by the U.P. Large Land Holdings Tax Act, 1957 (Act XXVI of 1957) which imposed a tax on all land-holdings the annual value of which exceeded Rs 3,600. A land-holder who did not cultivate more than 12.14 hectares of land was exempted from the payment of tax under this Act. It was levied on an graduated scale so that the larger the holding the greater the incidence of the tax.

The Uttar Pradesh Imposition of Ceiling on Land Holdings Act, 1960 (Act I of 1961) was enforced in the district on January 3, 1961, replacing the U.P. Large Land Holding Tax Act, 1959. The maximum area of holding was fixed at 16.19 hectares of stable and fair quality land (the hereditary rate of which was Rs 6 per hectare) but where the number of members in a family was more than 5, for each additional member 3.24 hectares of such land subject to a maximum of 9.71 hectares was added. The ceiling area, however, did not include land for certain purposes specified in the Act. All the surplus land (land held by a tenure-holder in excess of the ceiling area applicable to him) was made to vest in the State Government, the tenure-holder being entitled to receive compensation in lieu thereof. Except for pargana Jaunsar Bawar, with an area of 1,35,182 hectares, to which the Act does not apply, the number of land-holders affected by the Act was 22, and 145.28 hectares of land was declared surplus in the district, of which an area of 4.45 hectares was settled with tenure-holders. An amount of Rs 39,471 was assessed as compensation, out of which a sum of Rs 27,061 had been paid till the time of reporting.

ADMINISTRATION OF TAXES OTHER THAN LAND REVENUE

The other main sources of income in the district as elsewhere in the State, are State excise, sales tax, entertainment tax, stamp duties, registration, taxes on motor vehicles. The Central taxes are income-tax including estate duty and Central excise.

State Excise

In the early days of British rule Calvert, the first assistant collector of Dehra Dun, established a shop of spirits on a fee of Rs 456 a year

which was raised to Rs 2,000 in 1825, when a shop for the sale of hemp drug was also established at a fee of 5 annas per day. In 1827, the annual excise duty was calculated at Rs 1,802, which in 1827-28 fell to Rs 1,596-14-0 but which rose the next year to Rs 2,509-6-0. In 1831-32 the receipts amounted to Rs 4,666. Opium at this time was supplied by the cultivators in the hill pargana who paid no licence or cultivating fees.

One Mr Bhole set up the first brewery at Mussoorie and began selling a strong spirit without a license. The brewery later passed on to his son-in-law Mackinnon, to whom belonged the largest of the three breweries that the district had about the beginning of this century, the others being the Crown Brewery at Mussoorie and the Meakin's at Chakrata. Spirit was also manufactured in the government distillery at Dehra Dun.

The United Provinces Excise Act, 1910 (Act VI of 1910) was enforced in the district in the same year. It regulated transport, import, export, manufacture, sale and possession of intoxicating liquors and drugs and the collection of excise revenues, derived from duties, fees, taxes and fines.

For purposes of excise administration this district was put in 1961 under the charge of the assistant excise commissioner, Dehra Dun. An officer of the rank of a deputy collector was appointed as the district excise officer in addition to his duties. The district is divided into two circles, one comprising the municipal limits of Dehra Dun city, the adjoining area and Premnagar and the other the rest of the district, including Mussoorie and Chakrata. In 1971, circle I was further divided into two sectors: sector I comprising municipal limits, the adjoining areas and Premnagar, and sector II consisting of the government bonded warehouse of country spirit and bhang. At present the total number of excise inspectors posted in the district is 5, one each for sectors I and II (of circle I), one for circle II, one to look after the pharmacy and another the distillery. In addition, there is a post of an excise inspector on special duty to prevent smuggling of opium. In 1969, a distillery was established at Kuanwala, Dehra Dun, to manufacture plain and spiced spirits.

Liquor—Before the establishment of the Doon Valley Distillery in 1970, country spirit was supplied to the district by the Co-operative Distillery, Saharanpur. Now the local distillery issues liquor to the bonded warehouse, Dehra Dun, from where it is supplied to retail licensees of the district. The price of plain liquor is Re 0.21 per litre and that of the ordinary variety Re 0.33, fruit liquor is priced at Re 0.70 per litre. Till 1961, the number of liquor shops in the district was 20, which rose to 22 the next year when two more shops were opened in Dehra Dun tahsil. In 1966, shops were also opened at Kalsi and Bhaoowala, so that now there are 22 liquor shops in Dehra Dun tahsil and 2 in Chakrata tahsil. There is no wholesale depot or agency in this district for the supply of country spirit. Foreign liquor is sold by the wholesale and retail licensees. Messrs Dyer Meakin, now changed to Messrs Mohan Meakin Breweries are the oldest wholesale licensees for the manufacture of foreign liquor. Shaw Wallace and Company

also obtained a wholesaler's licence in 1962. In addition, retailers also import foreign liquor from different distilleries/breweries in Uttar Pradesh. There are 33 retail licensees in the district most of whom are confined to the towns of Dehra Dun and Mussoorie, there being only one each at Chakrata and Vikasnagar. The consumption of foreign liquor is very high as compared to the neighbouring districts, most of the consumers being tourists visiting Mussoorie and Dehra Dun in summer.

The consumption of country liquor in the district from 1959-60 to 1970-71 was as under :

Year	Plain	Spiced	Quantity (in L.P. litres)
1959-60	44,284 B.G.	8,752	1,88,888.5
1960-61	58,044	8,942	1,59,688.0
1961-62	59,895	4,113	1,91,689.7
1962-63	2,07,963	23,208	2,17,582.0
1963-64	3,74,963	26,604	2,68,680.0
1964-65	4,03,933	39,357	2,95,324.3
1965-66	4,14,813	59,522	3,14,275.3
1966-67	5,45,443	73,511	4,09,671.2
1967-68	6,05,801	77,951	4,52,103.3
1968-69	6,08,356	69,447	4,47,516.7
1969-70	5,85,840	67,010	4,81,053.5
1970-71	6,17,189	41,877	4,32,573.2

There has been a progressive rise in the consumption of country spirit due to expansion of the population of the city and the district. In the last three years there has been a nominal fall due to reduction of quotas fixed for the circles and the district.

Opium—Opium is consumed by habitual addicts and is also used for medicinal purposes. In the past it was also smoked in the forms called *chandu* and *madak* but now it is an offence punishable under the U.P. Opium Smoking Act, 1934 (Act 111, 1934) to do so. There were three licenced shops for the sale of opium in the district, whose quota was decreased every year ten per cent till they were closed in 1959. From July 1, 1959, sale of opium has been prohibited (as elsewhere in the State) and it is made available only to those who obtain a certificate from the civil surgeon of the district, or to those who are registered addicts and get their monthly quotas from the government treasury. In 1971, the number of such addicts in the district was 24.

The consumption of opium for the 5 years ending in 1970-71, was as under :

Year	Quantity
1966-67	8 kg. 774.7 grams
1967-68	6 „ 080.1 „
1968-69	4 „ 526.7 „
1969-70	4 „ 804.1 „
1970-71	1 „ 797.5 „

Hemp Drugs—Hemp drugs known as charas, ganja and bhang constituted a source of excise revenue in the past, but the use of charas was stopped in 1943-44 and that of ganja in 1956-57. For the sale of bhang there are 6 shops in the district, all situated in Dehra Dun tahsil. Bhang has never been very popular in this district and its consumption has been fluctuating due to vagaries of season and tourist traffic.

The consumption of bhang for the year 1960-61 to 1970-71 was as under :

Year	Bhang (in kg.)
1960-61	243
1961-62	293
1962-63	266
1963-64	289
1964-65	292
1965-66	303
1966-67	343
1967-68	240
1968-69	340
1969-70	385
1970-71	342

Excise Revenue—The excise revenue of the district from 1967-68 to 1970-71 is given in the following statement :

Year	Revenue (in Rs)
1967-68	65,18,997.05
1968-69	64,78,150.95
1969-70	67,81,275.08
1970-71	78,88,658.19

Sales Tax

In this district sales tax is levied under the U. P. Sales Tax Act, 1948, and also under the Central Sales Tax Act, 1957, the former having been amended from time to time.

For purposes of administration of this Act the district is under a sales tax officer, with a subcircle at Rishikesh under an assistant sales tax officer.

The number of assessees and the amount of sales tax collected in respect of important commodities in 1970-71 was as under :

Commodity	No. of assessees	Amount of tax (in Rs)
Kirana	392	2,75,000
Food-grains	140	1,08,000
Bricks	14	1,01,178
Ornaments	23	21,000
Brassware	20	16,400

The net collections from sales tax in 1970-71 amounted to Rs 13,72,856.

Entertainment Tax

There are two entertainment tax officers, one at Dehra Dun and the other at Mussoorie, who are assisted by three entertainment tax inspectors. The entertainment tax inspector posted at Hardwar, in district Saharanpur, looks after this work in Rishikesh also. Revenue from this source from 1966-67 to 1970-71 were as under :

Year	Amount of tax (in Rs)
1966-67	15,00,881.78
1967-68	15,18,298.08
1968-69	18,85,611.97
1969-70	21,57,884.72
1970-71	27,15,056.20

Stamps

Under the Indian Stamp Act, 1899 (Act 11 of 1899), stamps are classified as judicial and non-judicial, the former being affixed when court fees are to be paid and the latter on bills of exchange, receipt involving sums above Rs 20 and when duty on documents has to be paid. The income from these sources includes fines and penalties imposed under the Act.

Receipts from judicial and non-judicial stamps for the 5 years ending with 1970-71 were as under :

Year	Sales (in Rs)	
	Judicial	Non-judicial
1966-67	8,93,262.25	12,99,016.48
1967-68	5,01,862.60	13,81,562.25
1968-69	5,59,522.25	18,78,330.41
1969-70	5,28,016.50	15,80,808.97
1970-71	5,42,474.25	16,38,562.87

Stamps are sold through the district treasury, subtreasuries and licenced stamp vendors, whose number was 14 in the district at the close of 1970.

Registration

Documents such as instruments of gifts, sale or lease of immovable property, and instruments relating to shares in a joint-stock company have to be registered under the Indian Registration Act, 1908 (Act XVI of 1908). The district judge, Saharanpur, is the district registrar

of Dehra Dun. Registration work is done by the subregistrar at Dehra Dun, the sub-divisional officers of Chakrata and Mussoorie being ex officio subregistrars for these places.

The following statement shows the number of documents registered and the income from and expenditure on registration during the five years ending in 1970-71:

Year	Number of documents	Income (in Rs)	Expenditure (in Rs)
1966-67	5,111	2,36,77,865	21,46,600
1967-68	8,567	2,64,75,318	30,73,105
1968-69	5,642	2,61,23,750	29,96,875
1969-70	6,811	3,33,31,950	36,30,710
1970-71	7,024	3,07,24,675	29,09,595

Tax on Motor Vehicles

Motor vehicles in the district are taxed under the U.P. Motor Vehicles Taxation Act, 1935 and the Indian Motor Vehicles Act, 1939. The regional transport officer, Dehra Dun, is in charge of this work in the district. In 1970-71, a sum of Rs 68,88,199.37 was collected under the former and Rs 7,66,769.52 under the latter from the whole region.

Under the provisions of the U.P. Motor Gadi (Yatri-Kar) Adhiniyam, 1962, a tax was imposed on passengers travelling in public or private motor vehicles plying for hire. In 1970-71, a sum of Rs 30,19,640.22 was collected under the Act in the whole region.

The Motor Gadi (Mal-Kar) Adhiniyam, 1964, provides for the levy of a tax on goods carried by motor vehicles and in 1970-71, a sum of Rs 27,17,505.01 was collected in the region from this source.

Income-tax

This is one of the most important of the Central Government taxes. The district is divided into 4 wards, each under the charge of an income-tax officer, the number of income-tax inspectors in the district being 3.

The income-tax office is under the direct control of the commissioner of income-tax with headquarters at Kanpur. Cases of appeal are addressed to the appellate assistant commissioner of income-tax, Dehra Dun. The assessment of cases under the provisions of the Gift Tax Act, 1958, and the Wealth Tax Act, 1959, are also done by this department. The collections made from 1959-60 to 1970-71 were as below:

Year	Income-tax		Wealth tax		Gift tax	
	No. of assesseees	Amount of tax (in Rs.)	No. of assesseees	Amount of tax (in Rs.)	No. of assesseees	Amount of tax (in Rs.)
1959-60	5,110	70,00,000	210	92,000	21	12,000
1960-61	5,390	78,00,000	240	85,000	26	15,000
1961-62	5,640	75,00,000	280	1,00,000	24	11,000
1962-63	5,980	80,00,000	270	98,000	22	15,000
1963-64	6,150	84,00,000	260	1,08,000	29	9,000
1964-65	6,300	87,00,000	295	1,10,000	26	18,000
1965-66	6,825	98,00,000	300	1,05,000	31	12,000
1966-67	7,010	95,00,000	310	1,10,000	25	15,000
1967-68	7,281	99,00,000	330	1,15,000	28	20,000
1968-69	7,542	1,05,00,000	320	1,20,000	30	18,000
1969-70	7,980	1,10,00,000	360	1,50,000	36	15,000
1970-71	8,035	1,32,00,000	376	1,80,000	40	20,000

Estate Duty—Estate duty is levied on the property of a deceased person under the provisions of the Estate Duty Act, 1953. The assessment in the district from 1966-67 to 1970-71 was as follows :

Year	Income over one lakh of rupees		Income below one lakh of rupees		Total	
	Number of asses- sees	Amount of tax (in Rs.)	Number of asses- sees	Amount of tax (in Rs.)	Number of asses- sees	Amount of tax (in Rs.)
1966-67	43	5,84,000	84	84,000	127	6,18,000
1967-68	63	5,00,000	71	83,000	134	5,88,000
1968-69	19	5,12,000	84	60,000	53	5,72,000
1969-70	97	9,00,000	123	2,24,000	225	11,24,000
1970-71	201	28,00,000	156	8,00,000	357	26,00,000

Central Excise

For purposes of Central excise the district of Dehra Dun falls under the jurisdiction of the assistant controller, customs and Central excise, Saharanpur. A superintendent of Central excise and custom is posted at Dehra Dun for the collection of excise duties. The district is divided into two ranges, Dehra Dun I and Dehra Dun II each manned by an inspector. In addition to these, there are three other inspectors. Commodities dealt with by the department are patent or proprietary medicines, sugar, tea, tobacco, woollen yarn, cotton yarn, iron and steel products, electric bulbs, lamps, electric batteries, wool-tops, metal containers, office machines, etc.

The following statement shows the amount (in Rs.) of Central excise duty levied on various commodities and realised during the years 1966-67 to 1970-71 :

Commodity	1966-67	1967-68	1968-69	1969-70	1970-71
Sugar	42,52,155	30,25,739	23,47,733	33,20,454	42,67,061
Tea	62,380	1,41,124	92,063	88,091	1,38,486
Tabacco	18,664	16,565	17,800	9,513	7,011
Cotton yarn	4,63,987	3,24,475	2,77,341	1,87,474	2,24,879
Electric bulbs	4,18,234	4,90,011	5,43,018	5,52,033	6,04,120
Wool	—	—	2,370	16,15,774	20,14,962

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CHAPTER XII

LAW AND ORDER AND JUSTICE

LAW AND ORDER

About the beginning of the nineteenth century when the area covered by the present district of Dehra Dun was annexed by the British, there was no particular crime for which the district was notorious, apart from general lawlessness and the slave trade.

During the Gurkha rule, the area suffered the onslaughts of plunderers and raiders from the Punjab and Saharanpur. The authorities took a number of steps to control the situation and enforce law and order. The extreme severity of the methods of the Gurkhas almost reduced the Dun to a desert. According to Williams : "Raids from Saharanpur and the Punjab had been brought to an abrupt termination by the fulfilment of a threat to burn one village for every plundering party that entered the Dun. A band, of Sikhs once had the temerity to set the new government at defiance, and, as in the days of yore, sacked a village, carrying away several women and driving off the cattle. The Nepalese commandant, receiving intelligence of the outrage, sent two hundred men in pursuit of the marauders, whose own dwellings were surrounded and set on fire. Every man, woman, or child attempting to escape, was massacred, in cold blood, except a few of the handsomest females, whose beauty purchased them their life. This signal example had the desired effect." From Raper's account of his journey for the purpose of surveying the Ganga in 1808, a few more particulars are available. He also noticed the excessive rigour of the Gurkha rule in the region and writes "At the foot of the pass leading to Har-ka-pairi is a Gurkhali post, to which slaves are brought down from the hills and exposed for sale. Many hundreds of these poor wretches, of both sexes, from three to thirty years of age, are annually disposed of in the way of traffic. These slaves are brought down from all parts of the interior of the hills and sold at Hardwar from ten to one hundred and fifty rupees each." Fraser computed the total number sold during the Gurkhali occupation at 2,00,000. Where delinquents were unable to pay the fine imposed, the amount of which rested entirely at the arbitrary discretion of the Gurkha officer in charge of the district, he was sold into slavery together with his family. Parents driven to desperation sold their children and, in certain circumstances, uncles sold their nephews or nieces, and elder brothers, their younger brothers and sisters.

The British took steps to check the trade which had been introduced by the Gurkhas and to extirpate the bandits who harried travellers and traders. Gradually, law and order came to be established.

The statistics of important offences committed in the district between 1901 and 1921 are given in the statement below :

Offences	No. of persons convicted in		
	1901	1911	1921
Against public tranquillity	82	85	25
Affecting life	2	1	1
Grievous hurt	—	1	1
Criminal force and assault	21	7	7
Theft	87	70	104
Robbery and dacoity	—	2	—
Receiving stolen property	19	85	17
Criminal trespass	17	44	44

Organisation of Police

In ancient and mediaeval days the responsibility of maintaining law and order was that of the sovereign and the subjects. During the reign of the rajas of Garhwal law and order was maintained by the rajas and *sayanas* (headmen of villages). After occupation of the area by them, the British tried to build up a police force and they placed the revenue officials posted in tahsils in charge of police matters. Thanadars (station officers) were posted at different thanas to maintain law and order in their respective areas. In 1861, when the Police Act of 1861 (Act V of 1861) was enforced in the district, the police was re-organised and became a provincial force. The principal force was known as the regular police but a subsidiary body, the town police under Act XX of 1856 and the chowkidars were also operating. In Jaunsar Bawar the regular police was not introduced but the people themselves constituted a kind of constabulary in case of emergency and the superintendent being the immediate head of the force was guided by the Regulation of 1817.

The number of police-stations varied from time to time and in 1907, the district was divided into six police-stations located at Dehra, Sahaspur, Rani Pokhri, Rajpur, Mussoorie and Chakrata, each under a sub-inspector designated as officer in charge, assisted by second and third officers in some cases and personnel of the regular provincial police, who were assisted by village chowkidars. The district police was under the charge of a superintendent of police with headquarters at Dehra Dun, subject to the control of the district officer who was known as the superintendent of Dehra Dun. In 1907, the regular police force consisted of 12 subinspectors, 8 head constables and 69 constables.

The number of personnel of the town police was 4, and those of road police 10 and rural police 171. In 1911-12, there were 8 police-stations in the district and the number of subinspectors was 18, head constables 44 and constables 284. The number of town police and road police remained the same but that of rural police was reduced to 169. In 1920-21, the regular police were comprised of 19 subinspectors, 34 head constables, 19 *nalks*, and 316 constables, whereas the strength of the rural police stood at 171.

The district police is divided into three broad divisions—the civil police, the armed police and the prosecution unit.

Civil Police—The police force of the district is under the control of a superintendent of police who is assisted by three deputy superintendents all of whom have their headquarters at Dehra Dun. The force of the district consists of 2 inspectors, 49 subinspectors, 79 head constables and 570 constables.

For maintenance of law and order the district has been divided into four police circles, the circle Mussoorie being under the charge of the superintendent of police and the remaining three each under a deputy superintendent.

The following statement gives the description of police circles and the names of police-stations and police out-posts under them:

Police circle	Police-stations	Out-posts
Circle I Mussoorie	Mussoorie	Landour Kulri Library Happy Valley Barlow Ganj
*Circle II City	Kotwali Dehra Dun	Dhara Lakhibagh Khurbura Laxmanchaulk
	Dalanwala	Karanpur Araghar Raipur Hathibarkla
Circle III Rishikesh	Clement Town	Clement Town Asarori
	Rishikesh	Rishikesh Raiwala Antibiotics Factory Rani Pokhri
Circle IV Chakrata	Sahaspur	Harbertpur Vikasnagar Dakpathar Darareet
	Chakrata	Kalsi Sahiya
	Rajpur	Kuthal Gate

*There are five out-posts more in this circle located at Circuit House, Ghanghora Panditwari, Bindal and Premnagar

In urban areas of the district, the police-station at the district headquarters, called the *Kotwali*, is under the charge of an inspector assisted by 10 subinspectors, 14 head constables and 87 constables. The police-stations at Mussoorie and Clement Town are each staffed by 3 subinspectors and 8 head constables but the number of constables are 57 and 38 respectively. The police force at Dalanwala police-station consists of 3 subinspectors, 11 head constables and 62 constables. The strength at the police-station of Rishikesh consists of an inspector, 5 subinspectors, 6 head constables and 47 constables. The police-station of Sahaspur is staffed by 3 subinspectors, 5 head constables and 30 constables. There are 2 subinspectors and 10 constables each posted at the police-stations of Chakrata and Rajpur, the number of head constables being 3 and 2 respectively. The strength of the police force given above also includes those posted at different out-posts falling under each police-station.

Armed Police—The armed police force of the district is stationed at the reserve police lines and is under the overall charge of the superintendent of police. In 1970-71, it consisted of an inspector, a subinspector, 2 reserve subinspectors, 33 head constables and 162 constables.

Prosecution Unit—In 1970-71, the prosecution staff was comprised of a senior public prosecutor and 7 assistant public prosecutors. The main function of the prosecution unit is the presentation of police cases in the criminal courts of the district. The unit has been placed under the charge of the district magistrate.

Village Police—The institution of village chowkidars, who form the lowest rung of the police organisation, may be traced to ancient times when each village had its own chowkidar to assist the village headman in maintaining law and order and guarding crops and property. He was then the servant of the village community and was remunerated by the cultivators with a share of their produce and some cash. Under the North-Western Provinces Village and Road Police Act, 1878, the district officer was made the appointing and dismissing authority of village chowkidars. The actual control and supervision over them, however, rested with the superintendent of police, an arrangement that still continues. They are now attached to the police-stations and paid a monthly salary of Rs 10 by the government. Their main duty is to report the occurrence of important crimes and other incidents in their areas. They also act as process-servers for the *nyaya* panchayats for which they are paid separately. In 1970, there were 97 chowkidars in the district all of whom were posted in Dehra Dun tahsil.

Prantiya Vikas Dal

This is a voluntary organisation set up at the headquarters of the district in 1948 to mobilize rural man power, carry out youth welfare activities in the rural areas and organise villagers for self-defence. The paid staff consists of a district organiser and a block organiser in each block, the unpaid staff comprising 33 *halqa sardars* (circle leaders), 228 *dalpatis* (group leaders), 680 *tohi naiks* (section leaders)

and 6,300 *rakshaks* (guards). The State Government finances the scheme. Members of the organisation are sometimes called for duty in fairs and are required to guard and patrol vulnerable points during emergencies.

Government Railway Police

The railway police-station at Dehra Dun is in the charge of a sub-inspector who works under the administrative control of the superintendent of police railways, Moradabad section, Moradabad. The sub-inspector is assisted by 3 head constables and 22 constables. The main duties of the staff are maintenance of law and order and control of crime within the railway precincts. The jurisdiction of the police-station extends to the railway stations of Raiwala, Kans Rao, Doiwala, Harrawala and Rishikesh. During the tourist season, from April 15 to October 31 each year, an additional force of a subinspector, a head constable and 6 constables is posted temporarily to meet the tourist rush.

Village Defence Societies

In 1970, there were 357 village defence societies functioning in the district. These were purely non-official organisations set up to foster a spirit of self-defence among the residents of the rural areas against criminals, particularly dacoits and thieves.

Jail and Lock-ups

District Jail—The district jail was established in 1820 at Dehra Dun and is under the charge of the chief medical officer of the district who is also the superintendent of the jail. He is assisted by a jailor, a deputy jailor and two assistant jailors. The jail hospital is looked after by a whole-time doctor, called the assistant medical officer. The inspector general of prisons, U.P., who has his headquarters at Lucknow, is the head of department for all matters relating to the administration of the jail.

The district jail has accommodation for 122 prisoners. Their average daily population since 1966 is given in the following statement :

Year	Convicts	Under trial prisoners
1966	67.22	59.54
1967	79.80	67.14
1968	86.12	91.62
1969	71.99	100.84
1970	78.21	90.12



An Architectural piece with figures in Chaitya window motif lying in shed of Asokan Rock edicts, Kalsh,
Dehra Dun

The main industry in which the inmates of the jail are gainfully employed is the making of *moonj* mats.

Welfare of Prisoners—Formerly prisoners were graded in categories 'A' 'B' and 'C' according to their social status and nature of offence. Since 1948, however, they are classified only as 'superior' and 'ordinary' prisoners.

Conditions of life in jails have greatly changed since Independence and prisoners now enjoy many amenities.

Revising Boards—For periodical review of cases of all the convicts sentenced to terms of imprisonment of three years or more, a revising board is appointed by the State Government.

Official Visitors—The ex officio visitors of the jail are the director of medical and health services, U.P., the commissioner of the Division, the district and sessions judge, and the district magistrate, Dehra Dun.

Non-official Visitors—The State Government appoints non-official visitors of the jail from amongst prominent citizens of the district, who are authorised to write inspection notes. Their terms of office is usually two years.

All local members of the State and Central legislatures, all members of the standing committee of the State legislature on jails, the chairman of the central committee of the Uttar Pradesh Apradh Nirodhak Samiti, the chairman, municipal board, Dehra Dun and the Adhyaksh, Zila Parishad are the non-official visitors of the jail. They constitute the board of visitors, which visits the jail twice a year, on dates fixed by the superintendent of the jail, in consultation with the president and members of the board, the president being the district and sessions judge, Dehra Dun.

Lock-ups—A lock-up having separate arrangement for men and women is located in the premises of the collectorate and another in that of the sessions courts for the custody of prisoners brought from jail to courts to attend the hearing of their cases, and persons sentenced to imprisonment by courts before they are taken to district jail at the end of the day. The lock-ups are supervised by the senior public prosecutor under the control of the district magistrate. At each police-station also, there is a lock-up (separately for men and women) under the charge of the station officer concerned.

At the headquarters of each tahsil there is a revenue lock-up, usually a small room, to detain persons arrested for non-payment of government dues under the revenue law. Such defaulters may be detained for a maximum period of 14 days at a time.

Probation

The probation scheme was introduced in the district in March, 1950, under the U.P. First Offenders Probation Act, 1938 (Act VI of 1938) when a probation officer was posted in the district.

The scheme was withdrawn in October, 1954, but was re-introduced in November, 1958. The probation officer works under the administrative control of the Nideshak, Harijan and Samaj Kalyan Vibhag, U.P., and of the district magistrate in his day to day work. He supervises the activities and conduct of the juvenile offenders released on probation, ensures that they observe the conditions of the bonds executed by them, makes periodical reports to the courts concerned about them, and, in general, assists and befriends them trying, if necessary, to find suitable jobs for them. The Act provides for release on probation of first offenders under the age of 24 years. In 1970, as many as 27 offenders were dealt with by the probation officer, the number of domiciliary visits paid by him being 253.

JUSTICE

Early History

During the reign of the rajas of Garhwal over a part of the present district, panchayats or councils of arbitrators dealt with cases of disputed inheritance and commercial matters. Another method prevalent in those days was a system in which the names of the parties were written on slips of paper of equal size, shape and material, and were then laid before an idol in a temple, the priest then went in and took up one of the papers, the name of the party recorded therein being declared successful. Matters pertaining to criminal administration were decided in temples by oaths taken before the idol. For purposes of ascertaining the truth the accused had to undergo certain ordeals. Traill noted an ordeal, the *tir-ka-dip*, in which the person remained with his head submerged in water while another ran the distance of a bow-shot and back.

Treason as a rule was punishable by death. Murder, if committed of a Brahmana, brought a sentence of death, and in other crimes fine was imposed and property was confiscated. The wilful slaughter of a cow, or the infringement of the rules of the Varnashram Dharma by a Dom, such as touching the pipe (*hukka*) of a Brahmana or Rajput, were also punishable with death. Persons condemned to death were either hanged or beheaded.

In 1803, when the Gurkhas overran the district all criminal and civil cases were disposed of by the commandant of the troops to whom the tract was assigned or by the *becharis* (deputies) when the commandant was away from headquarters. Cases of importance were dealt with by the civil governor, assisted by the military chiefs. A brief oral examination of the parties concerned was conducted in the court and if there was any doubt about a statement, the witness was made to swear by the *Harivamsa Purana* (a sacred book of the Hindus). When the evidence of eye-witnesses could not be had or the testimony was conflicting recourse was taken to certain ordeals. Three forms of such ordeals were in common use : *gola-dip* (carrying a bar of red hot iron in the hand for a certain distance), *karhai-dip* (plunging the hands in boiling oil), and *tarazu-dip* (weighing the accused against stones and reweighing him the next morning) : if the person undergoing this ordeal proved heavier than on the preceding evening, he was declared innocent.

Even the *mahant* (priest) of the temple of Ram Rai in the district had to submit to the *karhai-dip* ordeal when charged with murder, and being severely burned, was obliged to pay a heavy fine. Most of the quarrels and disputes regarding land were decided by taking an oath. This had several forms. It could be on a son's head, which was very uncommon, or on a clod of the land in dispute, or by one side cutting in two a piece of bamboo placed on the disputed land by the opposite party. But the most common custom was that the oath was written on a piece of paper called *bando*, which one party left in the temple where he worshipped and the other party was asked to pick it up.

On the expulsion of the Gurkhas from the district, the British annexed it to district Saharanpur. They introduced their own judicial system and under Regulation X of 1817, it was governed by the laws of other ceded and conquered districts. Under the Regulation the superintendent of the Dun was empowered to try criminal cases. The Regulation XXI of 1825 placed the district under the jurisdiction of the commissioner of Kumaon and the superintendent of the Dun became assistant to the commissioner of Kumaon. The latter was invested with the powers of a magistrate in criminal and of a civil judge in civil cases. The *tahsildar* and *peshkar* (*najib tahsildar*) looked after the affairs of the police. In 1829, by Regulation V of that year, the district was again removed from the jurisdiction of the commissioner of Kumaon and was placed under the commissioner of Meerut Division, who was invested with the powers of an appellate authority in civil cases. In 1831, a *sadar diwani adalat* (chief civil court) and a *sadar nizamat adalat* (chief criminal court) were established at Allahabad, the jurisdiction of which extended to this district also.

In 1848, the *sadar diwani* and *sadar nizamat adalats*, which were the highest civil and criminal courts respectively in North-Western Provinces, were transferred to Agra. In 1866, the *sadar diwani* and *sadar nizamat adalats* were abolished and a high court of judicature was set up at Agra, being transferred to Allahabad in 1868. The courts at Dehra Dun were brought under its jurisdiction and they have continued therein ever since.

In the pargana of Jaunsar Bawar, Regulations X of 1817 and V of 1829 were also applied. For purposes of enabling the people to administer justice among themselves, Ross, superintendent of Dehra Dun, drew up a code of law and procedure known as *dastur-ul-amal* for the guidance of the local panchayats in the Settlement of 1848. This was compiled from the customs and traditions current amongst the people, only making alterations when these were repugnant to morality and common sense. Provisions, for example, were made for prohibiting the practice of compounding felonies or disposal of cases of felony, specially murder, by the *sayanas*. The accusation of witchcraft was made a punishable offence as well as the practice of cursing the ground from motives of revenge. The Act XXIV of 1864 vested the administration of justice and collection of revenue of the pargana in such officers as the Lieutenant-Governor might appoint, who were to be guided by the rules framed for the Tarai districts under Act XIV of 1861. The superintendent of the Dun was invested with the administration of Jaunsar

Bawar, in subordination to the commissioner of the Meerut Division. For administration of civil justice, powers were delegated to the assistant to the superintendent, the superintendent and the commissioner, and for the administration of criminal justice to the tahsildar of Kalsi, the assistant to the superintendent, the superintendent and the commissioner. The tahsildar of Kalsi was authorised to try petty criminal cases made over to him by the superintendent. His power was limited to the extent of a fine of Rs 50 or a sentence to six months, rigorous imprisonment. The assistant was restricted to the trial of the cases referred to him by the superintendent and his powers only extended to the imposition of a fine of Rs 100 or a sentence of one year's rigorous imprisonment. Appeals lay from him to the commissioner of the Meerut Division, to whom all cases of heinous nature were to be committed for trial, but in those of murder and all others demanding a more severe punishment than 14 years of rigorous imprisonment, his sentence could not be carried out without the concurrence of the judge of Meerut, or in the event of a sentence of death, without confirmation by the *sadar nizamat adalat*.

Civil Justice

About 1910, the superintendent exercised civil powers of the district civil judge, and the commissioner of the Meerut Division those of the high court with certain important exceptions. For the purposes of the enforcement of the Indian Succession Act, and the Indian Divorce Act, 1869, the district judge of Saharanpur was given the powers of the district court. One of the cantonment magistrates of Chakrata was the assistant superintendent in charge of Jaunsar Bawar. He was a magistrate of the first class and a civil judge with power to try suits of a value not exceeding Rs 500. He was also judge of small causes in his sub-division. The tahsildar was empowered to try civil and revenue suits where the dispute was valued at not more than Rs 300. In 1912, a bench of honorary *munsifs* was instituted at Dehra Dun and another at Sahaspur.

At present the civil courts in the district are those of the district judge, two courts of additional civil judges and a court of *munsif*. The *munsif* deals with regular civil suits up to a valuation of Rs 5,000. The district judge who is the head of the judiciary in the district, as well as of Tehri Garhwal, Garhwal, Chamoli and Uttarkashi, and the additional civil judges, have unlimited original pecuniary jurisdiction of civil cases and jurisdiction conferred upon them by various other Acts and statutes.

The position of case work in the civil courts in the year 1970 was as follows :

Cases	Number
Pending at the beginning of the year	3,470
Instituted during the year	4,127
Disposed of during the year	4,678
Pending at the end of the year	3,919

In the same year the number of suits instituted involving immovable property was 308, movable property 388, relating to matrimony 63, concerning mortgage 26 and others 254.

The number of suits instituted in 1970, according to valuation were as follows :

Valuation	Number of suits
Not exceeding Rs 100	2
Exceeding Rs 100 but not Rs 1,000	520
Exceeding Rs 1,000 but not Rs 5,000	487
Exceeding Rs 5,000 but not Rs 10,000	73
Exceeding Rs 10,000 but not Rs 20,000	87
Exceeding Rs 20,000 but not Rs 5 lakhs	23
Exceeding Rs 5 lakhs	1

The total valuation of the suits so instituted was Rs 39,46,047.

Details of the modes of disposal of suits in the year 1970 are as given in the following statement :

Manner of disposal	Number of suits
Disposed of after trial	222
Dismissed for default	229
Otherwise decided after trial	185
Decree ex parte	163
On admission of claims	8
On compromise	107
On reference to arbitration	5
Total	919

The position of appeals instituted and disposed of in the year 1970 was as follows :

Nature of appeals	Instituted	Disposed of
Regular civil appeals	126	123
Miscellaneous civil appeals	65	96

Criminal Justice

For purposes of administration of criminal justice in 1910, the powers of the superintendent were same as those of the district magistrate of any other district. An assistant superintendent performed the duties of a joint magistrate and assistant collector. A deputy collector who was in charge of Mussoorie treasury and of all criminal work arising within the limits of Mussoorie police-station was posted in addition. There was also a bench of honorary magistrates at Mussoorie. In 1921, the jurisdiction of the bench extended to the whole district. In Jaunsar Bawar the superintendent exercised not only the power of a district magistrate but was given the enhanced powers conferred by section 30 of the Code of Criminal Procedure, 1898. The district judge of Saharanpur exercised the powers of a sessions judge over this district till 1966, when a district judge was appointed for the district.

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In 1966, the court of district and sessions judge designated as district judge, Uttarakhand (West) was established in the district having jurisdiction over the districts of Tehri Garhwal, Garhwal, Chamoli and Uttarakashi besides Dehra Dun. It constitutes the chief criminal court of the district and is assisted by two additional sessions judges to whom cases are transferred by the district judge.

The additional district magistrate (judicial) and two judicial officers have been placed directly under administrative control of the district and sessions judge, Dehra Dun. They exclusively try all cases under the Indian Penal Code. The *munsif* has also been invested with magisterial powers of the first class, and tries criminal cases transferred to his court by the additional district magistrate (judicial) and the judicial officers.

The other courts concerned with criminal administration in the district are those of the district magistrate, the additional district magistrate (executive), three subdivisional magistrates, an additional magistrate (city), two extra magistrates, a tahsildar (quarries) and tahsildars of Dehra Dun and Chakrata.

Some statistics of cases in these courts and persons involved in them are given below :

Nature of cases	1968		1969		1970	
	No. of cases	Persons involved	No. of cases	Persons involved	No. of cases	Persons involved
Under Cr. P.C.	261	733	272	693	164	606
Under special and local Acts	7,803	7,659	6,582	7,193	7,143	8,053
Total	7,567	8,392	6,854	7,886	7,307	8,659

Sentences Awarded

Sentences	1968	1969	1970
Rigorous imprisonment	338	346	313
Simple imprisonment	101	62	42
Fined only	5,440	5,093	5,529

Some details of the criminal case work from 1968 to 1970 in the sessions courts are given as under :

Cases Instituted

Nature of offence	1968		1969		1970	
	Cases com-mitted	Cases sen-tenced	Cases com-mitted	Cases sen-tenced	Cases com-mitted	Cases sen-tenced
Affecting life	5	3	7	11	10	11
Kidnapping and forcible abduction	7	—	10	—	12	2
Hurt	4	3	6	—	8	7
Rape	3	—	3	—	4	—
Unnatural offences	—	—	2	1	—	—
Robbery and dacoity	12	2	15	21	18	1
Other cases	7	4	16	7	12	2

Persons Tried and Sentenced

Persons tried/sentenced	1968	1969	1970
Tried	31	70	19
Death sentence	2	4	3
Life imprisonment	1	7	4
Rigorous imprisonment	10	32	13

In the district the position regarding cognizable crimes under the I.P.C. and the special Acts in the years from 1966 to 1970 was as follows :

Year	Cases reported to police	Cases investigated	Cases sent to courts	Cases pending in courts at beginning of year	Cases disposed of		
					Convicted	Discharged or acquitted	Compounded
1	2	3	4	5	6	7	8
1966	1741	1775	379	207	270	53	45
	448	464	423	145	255	136	—
1967	2757	2596	466	213	260	81	37
	660	726	523	177	204	82	—
1968	2603	2455	569	301	241	104	124
	1492	1558	1214	414	1045	85	5
1969	2385	2094	436	391	241	108	55
	1120	1167	1029	481	1085	121	5
1970	3261	2697	482	423	229	127	37
	2770	2785	2506	597	2001	90	6

N.B.—The numerator represents number of offences under the I.P.C. and the denominator that of offences under special Acts

The number of cases relating to important crimes like murder, dacoity, and robbery, etc., with details of convictions and acquittals in the years from 1966 to 1970, were as given in the following statement :

Crime	1966	1967	1968	1969	1970
Murder					
Reported	15	10	8	10	16
Convicted	5		2	3	2
Acquitted	1	3	3	3	2
Dacoity					
Reported	2	6	7	4	16
Convicted	1	—	3	—	2
Acquitted	—	4	3	1	2
Robbery					
Reported	15	24	22	17	42
Convicted	2	7	5	1	6
Acquitted	4	8	4	4	8
Riot					
Reported	38	38	58	63	116
Convicted	11	9	11	13	3
Acquitted	5	4	10	6	4
Theft					
Reported	854	841	868	793	890
Convicted	102	102	78	77	46
Acquitted	16	17	28	26	11
House-breaking					
Reported	382	703	598	540	648
Convicted	58	87	75	61	37
Acquitted	17	24	23	19	14
Kidnapping					
Reported	13	19	48	42	72
Convicted	5	4	3	2	3
Acquitted	3	1	5	3	4
Rape and unnatural offence					
Reported	9	—	6	3	14
Convicted	2	—	—	1	—
Acquitted	2	—	—	1	1

Separation of Executive from Judiciary

As a further step towards separation of the judiciary from the executive at the magisterial level, the additional district magistrate (judicial) and the judicial magistrates working under him were transferred to the control of the district and sessions judge, Dehra Dun, in 1967. They try cases under the Indian Penal Code. The judicial magistrates can now be utilised for law and order duties by the district magistrate only in an emergency and with the prior approval of the district and sessions judge. For such occasions, however, all deputy collectors and officers of the Indian Administrative Service posted in the

district and tahsildars have been invested with first class magisterial powers, in order that they may be utilised for the maintenance of law and order.

Nyaya Panchayats

Panchayati *adalats*, now called *nyaya* panchayats, were established in the district in 1949 under the U.P. Panchayat Raj Act, 1947, to entrust the village people with the power to adjudicate petty offences and certain civil disputes locally. The jurisdiction of a *nyaya* panchayat usually extends over an area of five to ten Gaon Sabhas depending on the population of the constituent villages. In 1949, as many as 16 *nyaya* panchayats were formed in tahsil Dehra Dun and in 1954 as many as 13 more were constituted in tahsil Chakrata. In 1961, the number of *nyaya* panchayats in tahsil Dehra Dun increased to 20 raising the total number in the district to 33. There has been no change in the number since then.

The *panchs* of the *nyaya* panchayats are nominated from amongst the elected *panchs* of the *gaon* panchayats by the district magistrate with the assistance of an advisory body. The *panchs* elect the *sarpanch*, that is, the presiding officer, and a *sahayak* (assistant) *sarpanch*.

The *panchs* are honorary workers and hold office for a period of five years. Their term of office can be extended by a year by the State Government. Cases are heard by benches consisting of five *panchs* each, and constituted by the *sarpanch* annually. The presence of at least 3 *panchs*, including the *sarpanch*, at each hearing, is essential.

The *nyaya* panchayats are empowered to try criminal cases under the Act or specific sections thereof as given below :

(a) The U. P. Panchayat Raj Act, 1947

(b) Sections

140	277	328	374	430	509
160	283	384	379*	431	510
172	285	341	403*	447	
174	289	352	411*	448	
179	290	357	426	504	
269	294	358	428	506	

of the Indian Penal Code

*Involving property not exceeding an amount of Rs 50 in value

(c) Sections 24 and 26 of the Cattle Trespass Act, 1871

(d) Subsection 1 of section 10 of the U.P. District Board Primary Education Act, 1926

(e) Sections 3, 4, 7 and 13 of the Public Gambling Act, 1867 as amended for Uttar Pradesh.

The *nyaya* panchayats also try civil suits of a valuation of up to Rs 500 and simple revenue cases if the parties concerned agree in writing to such a course. They are not authorised to award sentences of imprisonment and can impose fines only up to a hundred rupees. Revision applications against their decisions in civil, criminal and revenue cases lie respectively, to the *munsif*, the subdivisional magistrate and the subdivisional officer concerned.

The number of cases instituted in the *nyaya* pachayats and disposed of by them during the years 1966 to 1970 were as follows :

year	Cases pending at beginning of year	Cases instituted during the year	Cases disposed of
1966	91	438	464
1967	65	314	337
1968	42	392	376
1969	58	320	295
1970	88	264	291

BAR ASSOCIATION

A bar association was constituted in 1922 which was known as the bar association Dehra Dun. It has its own building. All advocates, pleaders and mukhtars are eligible for its membership subject to its rules and regulations. It is a registered body and in 1971 it had 145 members. The association runs a library containing law books and law journals for the use of its members. It also aims to promote the welfare of the bar and to safeguard civil liberties of its members and citizens.

CHAPTER XIII

OTHER DEPARTMENTS

Departments of the State Government dealing with general administration, revenue administration and law and order and justice in the district have already been described in the preceding chapters. In what follows, the organisational set-up of the agriculture, animal husbandry, co-operative, education, forest, industries, irrigation, hydel and public works departments at the district level is discussed briefly.

AGRICULTURE DEPARTMENT

An office of the department of agriculture was set-up in the district in 1875. In the beginning the activities of the department were confined mostly to the collection of agricultural statistics and setting up of model agricultural farms. A government sericulture farm was established at Dehra Dun in the same year. A district agriculture officer is in charge of the implementation of various agricultural programmes under the Five-year Plans. He is assisted by an additional district agriculture officer, an agriculture inspector (buffer), a senior mechanical assistant, an assistant block development officer (agriculture) in each block, a senior horticulture inspector and eight *kamdars*. The additional district agriculture officer is responsible for supplies of seeds and fertilizers. The agriculture inspector (buffer) is in charge of a buffer godown located at Dehra Dun. There are 7 assistant agriculture inspectors, one each for remaining seven seed stores located at Dehra Dun (central seed store), Doiwala, Sahaspur, Chakrata, Kalsi, Herbertpur and Satyanarayan. The senior mechanical assistant, assisted by a field mechanic, gives guidance to extension workers and cultivators regarding the use of agricultural implements and machinery. He also looks after their repairs. For increasing agricultural production the agriculture department helps the farmers in procuring improved seeds, implements and fertilisers plus the technical know-how. In 1970-71, the department of agriculture distributed 16 power threshers, 4 power tillers, one power sprayer and 33 tractors among the farmers. It also supplied 1,852 metric tonnes of chemical fertilisers and about 897 quintals of improved seeds of different varieties through a network of seed stores. The senior horticulture inspector and a district horticulture inspector supervise and encourage horticulture in the district.

There are four assistant horticulture inspectors, one each posted at the block headquarters of the district, to supervise the work of 22 *malis*. For plant protection work, a senior plant protection assistant is posted at plant protection centre, Dehra Dun. He is assisted by four junior plant protection assistants each in charge of a subcentre. A plant protection supervisor and a field assistant is also posted in each block,

ANIMAL HUSBANDRY DEPARTMENT

In 1892, the civil veterinary department was constituted in the State to develop better breed of horses, mules and donkeys, etc., and a superintendent was appointed under the director of land records and agriculture with headquarters at Meerut with a few touring veterinary assistants to treat sick horses. In 1901, seven veterinary dispensaries were started each under the charge of a veterinary assistant surgeon. The cost of these dispensaries was met by the district board. In 1913, a veterinary hospital and a dispensary started functioning at Dehra Dun. With the passing of the District Boards Act of 1922, the anomalies of the dual control over the staff engaged in veterinary work came to the fore. As a result the government assumed full powers over the staff by 1944 when a full-fledged department of animal husbandry was created under a director. In 1947, the U.P. Provincialisation of Hospitals Act and the U.P. Veterinary Council Act were passed. The first Act provides for the control of veterinary hospitals and the second for the registration of veterinary practitioners.

The activities connected with animal husbandry in the district are looked after by a district live-stock officer who is responsible for improvement in the breeds of cattle and poultry, prevention and treatment of their diseases and control of epidemics among them. He is assisted by a veterinary officer, ten veterinary assistant surgeons and two assistant block development officers (animal husbandry) manning the veterinary hospitals of the district. There are also 16 stockmen posted in the district to manage first-aid dispensaries and artificial insemination centres and one sheep supervisor to look after sheep development work.

The district live-stock officer works under the additional district magistrate (planning).

Veterinary hospitals in the district located at Dehra Dun, Mussoorie, Rishikesh, Doiwala, Vikasnagar, Sahiya and Tuini are each under a veterinary assistant surgeon. The veterinary hospital at Chakrata is looked after by a veterinary officer, and the hospitals at Sahaspur and Subhashnagar each by the assistant block development officer (animal husbandry). The key village block at Dehra Dun is also running under the supervision of the veterinary officer and the bull artificial insemination centre at Doiwala under an assistant veterinary surgeon. In addition there are 16 first-aid dispensaries and artificial insemination centres.

CO-OPERATIVE DEPARTMENT

The assistant registrar, co-operative societies of the district is responsible for the co-operative movement in the district and for proper functioning of the co-operative institutions. He is assisted by two additional district co-operative officers, a senior inspector and an assistant in-charge of statistical work, 6 inspectors and an assistant block development officer posted in each block.

EDUCATION DEPARTMENT

The district inspector of schools is responsible for the supervision, control and inspection of educational institutions up to the higher secondary stage. He is assisted by a deputy inspector of schools, who is mainly responsible for the inspection of all primary and junior high schools for boys and the proper utilisation of government grants received by the Zila Parishad pertaining to both boys' and girls' schools under its jurisdiction. He also functions as Shiksha Adhikari for the Zila Parishad and is assisted by 8 sub-deputy inspectors of schools. A deputy inspectress of girls' schools is responsible for the primary and junior high schools for girls. She is assisted by four assistant inspectresses of girls' schools.

For organising the Pradeshik Shiksha Dal in the State there is a director of military education with his headquarters at Lucknow. The district is in charge of an assistant commandant who works under the general supervision of the district inspector of schools.

FOREST DEPARTMENT

The forest department was established in 1855 at Dehra Dun. It is the headquarters of the Siwalik and Tehri Garhwal circles of the forest department. A conservator of forests under the control of the chief conservator of forests, U.P., Lucknow is in charge of this circle. There are 3 forest divisions, East Dehra Dun, West Dehra Dun and Siwalik in the Siwalik circle with their headquarters at Dehra Dun, and the Chakrata forest division with headquarters at Chakrata and Yamuna forest division with headquarters at Mussoorie in the Tehri Garhwal circle, each under the charge of a divisional forest officer. He is also a deputy conservator of forests and is responsible for the execution of works and realisation of revenue. There are 9 assistant conservators of forests appointed in this district. A forest division is divided into several ranges, each being under the charge of a ranger, numbering 18 in the district. Ranges are divided into sections under the charge of deputy rangers.

There is a separate organisation for preservation of wild life and a wild life warden, Dehra Dun region is in charge of it. He is assisted by 6 assistant wild life wardens and 26 wild life guards.

INDUSTRIES DEPARTMENT

The district industries officer guides and assists industrial units in the private and co-operative sectors. He is also responsible for registration of industrial units, providing financial and other aids and giving advice regarding utilisation of raw materials. He is assisted by three industries inspectors, one of whom is exclusively responsible for industrial activities in the co-operative sector.

The main achievements of the department since 1966-67 are the establishment of a large scale industry (Bengal Immunity) and 120 small-scale industries in the district.

There is a cluster of training centres at Vikasnagar, which was established in 1960, under the charge of a foreman for imparting training to rural youth in the trades of fitter-cum-mechanics and electricians. It has trained 151 persons out of which 142 were absorbed in gainful employment.

IRRIGATION DEPARTMENT

For purposes of irrigation the district is divided into two subdivisions, one each under the charge of an assistant engineer. The assistant engineers are assisted by 8 overseers and one Zileदार. The general functions of the department are to maintain existing canals and *guls*, implementation of hydroelectric schemes and construction of new canals. The major works done by the department are construction of Bullamala, Barsai and Nayagaon canals.

The irrigation department of the State is implementing the Yamuna Hydel Project in the district under the control of an additional chief engineer assisted by 3 superintending engineers, each having jurisdiction over a division, 17 executive engineers, 87 assistant engineers, 120 overseers and 46 supervisors. When completed the project will supply electricity to a large area of Uttar Pradesh and Himachal Pradesh.

STATE ELECTRICITY BOARD

The electricity maintenance division, Dehra Dun, is under the charge of an executive engineer, who works under the administrative control of the U.P. State Electricity Board, Lucknow. He is assisted by six engineers and 14 line inspectors. The functions of the department include the development of power facilities, maintenance of electric supply and rural electrification.

PUBLIC WORKS DEPARTMENT

The district falls in the Dehra Dun provincial division under an executive engineer with headquarters at Dehra Dun. It forms part of the 24th circle of the public works department, U.P., under a superintending engineer with headquarters at Dehra Dun. The executive engineer is assisted by five assistant engineers.

The department is responsible for the construction and maintenance of all government buildings, bridges, culverts and roads.

CHAPTER XIV

LOCAL SELF-GOVERNMENT

The manifold responsibilities of welfare state, such as development schemes and other activities of public utility, can not be fulfilled without adequate participation of the people themselves, an extensive and organised system of local self-government being essential for the successful working of a democracy. The establishment of units of local self-government is an outcome of the principle of decentralisation of powers. There are various units of local self-government in the district, such as municipalities, notified areas and town areas for the towns, Zila Parishad for the district as a whole and *gaon* panchayats, for the villages. They are established under different Acts which have been passed from time to time.

MUNICIPAL BOARD

In 1971 there were four towns of Dehra Dun, Mussoorie, Rishikesh and Vikasnagar which were administered as municipalities under the U.P. Municipalities Act, 1916 (Act II of 1916) as amended from time to time. The Dehra Dun municipal board now known as the city board, was established in 1867 and realignments of its area took place in 1876, 1878, 1891 and 1909, the last being made with the object of including within the municipal limits the villages of Hathibarkala and Dalanwala. As one municipal Act succeeded another, the composition of the board also varied, a notable change being made when the government decided to add to the board a member of the Christian community to represent their interests. Mussoorie was one of the first hill stations to get local self-government. In 1842 a local committee was formed under Act X of 1842 and by-laws were drawn up for managing local affairs of the station. It raised funds at five per cent per annum on the annual rents of all houses in Mussoorie for the purpose of repairing, widening, fencing and improving the roads, development of sites for building houses and the like. The first municipal board appears to have been set up here under Act XXVI of 1850. Vikasnagar which acquired the status of a town area in 1951 under the U.P. Town Areas Act, 1914; was constituted into the municipality in 1968. A notified area was established for the first time at Rishikesh in 1922 and it was raised to the status of municipality in 1949.

The board consists of a number of members and a president. The members who are elected by the residents of the town on the basis of adult franchise, elect a president for the board from amongst themselves by a single transferable vote. The term of office of members and president is five years. The president is liable to be ousted by a

vote of no-confidence by the members. The State Government has power to dissolve the board and take its administration into its own hands or to enhance its normal tenure in special circumstances.

The main functions of the boards are cleansing, construction and maintenance of public streets and drains, water-supply and lighting of streets, running and supervising the educational institutions and looking after public health and medical services. The principal sources of their income are octroi on imports, tax on houses and lands, water tax, sale of refuse and compost, licence fees, fines, realisation under special Acts, terminal tax, registration fees, tuition fees and schools managed by the boards, revenue derived from municipal property and grants and contribution from the government. The main heads under which these local bodies spend their funds are general administration, collection charges, water-supply, public health and sanitation, maintenance of public streets and drains, education and lighting. The receipts and expenditure of municipal boards in the district for the last ten years have been appended in Table I to IV at the end of the chapter. All these towns are electrified.

Dehra Dun

According to the census of 1971, the area covered by the municipality of Dehra Dun was 31.08 sq. km. and its population was 1,66,078. It is not a town of industrial importance, though some industries have recently come up. The population of the city consists mainly of government and private office workers and the business class.

The municipal area has been divided into 13 wards—Rajpur, Old Dalanwala, Karanpur, Dalanwala, Dharampur, Lakhi Bagh, Luxman Chowk, Dhamawala, Paltan Bazar (Lunia Mohalla) Mannu Ganj, Khurbura, Chukhuwala and Hathibarkala. Rajpur and Hathibarkala wards elect one member each. Chukhuwala, Paltan Bazar, Mannu Ganj, Dharampur, Dalanwala and Old Dalanwala wards elect two members each and Dhamawala and Karanpur wards elect three members each. One seat is reserved in Khurbura ward. Luxman Chowk and Lakhi Bagh elect four members each. The total number of members of the board at present is 30. Two seats are reserved for members of the Scheduled Castes.

There were a number of sub-committees through which the city board discharged its functions till 31st December, 1969, such as the physical health, house construction, tax fixation, waterworks, education, hackney carriages, terminal or toll tax (octroi), finance, maternity hospital, public works, and office and staff committees. They were dissolved under government orders on account of certain constitutional difficulties.

Finances—In 1970-71 the income from various sources and expenditure under different heads of Dehra Dun municipal board were as follows :

Income

Receipts	Rupees
Municipal rates and taxes	31,70,122
Special Acts ...	16,755
Municipal property	10,21,148
Grants ...	10,12,922
Miscellaneous ...	1,05,994
Interest on investment	8,814
Others ...	15,47,322
Total	68,83,077

Expenditure

Expenditure	Rupees
General administration	6,06,083
Public safety	1,23,584
Public health and sanitation	88,59,379
Education	8,21,616
Contributions	6,884
Miscellaneous	3,10,580
Others	13,40,409
Total	70,68,535

Water-supply—The old Rajpur canal was formerly the main source of the town's water-supply. Around the year 1889, the first piped supply was brought from the Nalapani springs, but apparently only for the Europeans in the Civil Lines area. The supply proving insufficient for the town's requirements, the Kolukhet stream at Jharipani, on the bridle-path to Mussoorie, was tapped in 1898, and water brought into Dehra Dun at a cost of Rs 94,808. Later this had again to be supplemented by making arrangements for additional supply at a cost of Rs 60,000.

The present water-supply scheme was completed in May, 1987, the sources of supply being the Bindal river, the Kolukhet springs, the Nalapani springs and a few tube-wells. Pipelines of a length of 285.3 km. had been laid till 1970, with 652 taps for the public and 14,979 private connections. Nearly 7,640 million litres of water was supplied to the city by the waterworks of the city board during the year 1969-70, the supply of water being made for nearly 15 hours every day, at the rate of 118.2 litres per head per day.

The work of water-supply is looked after by a waterworks engineer of the city board, assisted by a staff of 121 persons.

The board spent a sum of Rs 9,94,251.00 on water-supply during the year 1969-70. Due to increase of population, the arrangements proved inadequate, and the board undertook to augment its water-supply through tube-wells, six of which have already been drilled, and 5 put into commission. But this arrangement, too, has proved incapable of solving the ever-increasing paucity of drinking water. The present quantity of water supplied by the waterworks department runs for short of requirements. Reorganisation of the distribution system, which is expected to cost about a crore of rupees has been taken up by the board recently.

Street Lighting—Electricity was made available in 1916 by the city board of Mussoorie. In 1972-73 there were 82,000 house connections and 3,000 industrial connections. There were 2,200 electric lamps for street lighting in 1969-70 when the city board spent an amount of Rs 68,949 on this item.

Public Health and Medical Services—The public health department of the city board is looked after by the Nagar Swasthya Adhikari. The board has under its management 4 allopathic, 5 Ayurvedic, one homoeopathic and one Unani dispensary. There is one infectious disease hospital under the city board's management which consists of one doctor and 8 other staff members. The number of beds available there was 28 in 1970-71. Twenty one patients were treated in this hospital in the same year. There is one Zacheha Bachcha Aspatal also managed by the public health department of the city board which is equipped by one doctor, one health visitor and four midwives. In this Aspatal 338 patients were treated in the year in 1970-71. A sum of Rs 65,80,430 was spent on public health during the year 1970-71 by the board.

Drainage—There are open nullahs made pucca by the board, the total length of kutchra and pucca drains of the entire city being about 1,21,920 metres. The work of converting the kutchra drains into pucca ones has been in hand since the time the board came into existence. Almost the entire city has surface drainage except the Dalanwala ward where there are storm-water drains. There is one *khala* for disposal of sullage water, commencing from Nashville road and leading to sullage farm. Almost all the drains in the city are flushed daily with the help of *bhishtis*.

About one-third of the city is sewerred and the programme for laying sewer lines in the entire city was to be completed in two phases, one of which has already been accomplished. The main sewer lines of the city are from the Rajpur road to the Saharanpur road via Paltan Bazar and from the clock tower to the railway station bazar via Gandhi road. The local self-government engineering department is preparing a comprehensive scheme for laying down sewers in the whole city; the sewage disposal farm will be in Karg village.

Night-soil is collected by scavengers and motor trucks and carried through channels to the sewage farm where it is composted and sold to cultivators for use as manure.

Education—The education department is looked after by an education superintendent assisted by 3 assistant attendance officers and some office hands. There were 2 senior Basic and 34 junior Basic schools for boys and 3 senior Basic and 16 junior Basic schools for girls in the town in 1970. The numbers of students in the senior Basic schools for boys and girls were 856 and 270 respectively, and those in junior Basic schools 4,953 and 2,748 respectively. The numbers of teachers in the senior Basic schools for boys and girls were 18 and 21 respectively and those in junior Basic schools 149 and 70 respectively in that year. Education in junior and senior Basic schools is free.

The board also gave aid to 12 junior Basic schools for boys and 14 for girls, 6 nursery and 10 special schools (such as music schools). Sixteen libraries and reading-rooms were also among the recipients of grants from the board. The number of aided schools for boys and girls were 12 and 14, with enrolments of 2,538 and 2,792 students respectively, in 1970. In 1969-70, the board gave grants to the following schools in addition to 16 libraries and reading-rooms :

Schools	Grant in rupees
Boys junior Basic schools (12)	11,326
Girls junior Basic schools (12)	9,170
Special schools (8)	7,875
Nursery schools (6)	4,450
Libraries and reading-rooms (16)	9,339
Total	42,160

There are 34 compulsory primary schools for boys with an enrolment of 4,862. Compulsory primary education for girls has yet to be enforced.

Nazul—*Nazul* is land or property which is legally vested in the government of the State, due to the death of persons leaving no heirs, confiscation, etc., the government having the right of management and

utilisation, which right it entrusts either to one of its own departments or to a local body in the district. In Dehra Dun district *nazul* land (21,82,220 sq. metres) lying within its boundaries is managed by the city board. One-fourth of the income from *nazul* property is deposited in the State treasury. Income from this source was Rs 12,192.31 in 1969-70.

Other Activities—The board is contemplating the giving of housing loans to private individuals and the proposed scheme is expected to go a long way towards further development of the town.

There are two parks maintained by the board, the Subhash Park at Parade Ground and the Patel Park situated opposite the General Post Office. The board also gives aid to a Sewa Sadan, a Mahila Ashram and an orphanage in the town.

Mussoorie

The total area of the town, comprising a population of 18,088 persons according to the census of 1971, is 65.27 sq. km. The municipal area has been divided into four wards: Jharipani-Barlowganj, Landour, Kulri, and Gandhi Chowk-Happy Valley, each of which, except for the Jharipani ward, elect three members each. The Jharipani ward elects only two members, one of whom is from the Scheduled Castes. The total number of members at present is fifteen, eleven being elected on the basis of adult franchise and four being nominated by the government. The president is elected by the members.

Finances—The total income of the board during 1970-71, was Rs 1,86,08,058 and the expenditure amounted to Rs 1,48,95,200.

Water-supply—The waterworks is under the charge of an electrical and mechanical engineer who is assisted by an assistant engineer, a pipeline inspector, a waste detection inspector, a head fitter (distribution) and four head fitters (pumps), besides, a number of linemen, junior linemen and gang men. The main sources of water-supply are three Murray pumps of which two were completed in 1908 and one in the year 1962-63, three Kandighat pumps two of which were completed in 1962-63 and one in 1966-67, two Bhilaru pumps completed in 1925, two Mackinon pumps completed in 1913 and two Landour pumps, completed in 1929. Pipelines of a length of 78 kilometres had been laid till 1970-71 with 107 taps for the public, the total quantity of water supplied during that year being about 1,390 million litres, at the rate of 163.6 litres per head per day. The storage capacity was about 1,890 million litres. The board spent a sum of Rs 12,45,909 during the year under this head.

Three sets of pumps of 75 horse power each have been installed at Kolti during 1970-71. The Jhinsi water-supply scheme is also under progress and the work is being done under the supervision of the local self-government engineering department.

Street Lighting—The city board, Mussoorie, is serving the entire area and has its main electricity office at Dehra Dun under an electrical and mechanical engineer and a separate office under the charge of an assistant electrical and mechanical engineer, at Mussoorie. The revenue and accounts organisation of the electric undertaking is under the charge of the executive officer of the city board, Mussoorie.

Electric supply was made available in Mussoorie in 1908, when the city board came forward and took up the work with the help of loans and license granted to it by the U.P. government. During those early days of the development of electricity in India, this board showed a spirit of significant enterprise in the generation and supply of electricity. Initially the area covered comprised the limits of the city board only, but after 1918, the government extended the area of the electric licence to the entire limits of Dehra Dun municipality, cantonments and suburbs at the request of the city board of Dehra Dun. To meet the steadily increasing requirements of Dehra Dun, and specially of the Indian Forest Research Institute, the board set up a diesel generating power station in 1927, within the Institute premises. Since 1950, the demand for power for industrial purposes has been constantly increasing and the State electricity board commenced supplying cheaper power in bulk with effect from the year 1958, to the undertaking at Dehra Dun where, too, the demand had been ever on the increase. The present requirements of electricity in the entire licensed area (177.02 sq. km.) of the city board, Mussoorie, is 18,000 KW, out of which 9,500 KW is being purchased from the State electricity board. There are 30,518 connections for domestic use and the number of street lights is 29,958. The board spent a sum of Rs 1,08,58,565 on street lighting in 1969-70.

Public Health and Medical Services—The Public health department of the city board is under a Nager Swasthya Adhikari who is assisted by a staff of about 300 persons. During 1970-71, there were a women's hospital and an infectious disease hospital under the control and management of the board, where 4,679 and 9 patients, respectively were treated in that year. There are two allopathic dispensaries at Gandhi Chowk and Barlowganj where the patients treated during 1970-71 numbered 8,888 and 1,865 respectively. There is also a maternity and child welfare centre managed by the board and in the veterinary hospital run by the board 2,500 animals were treated during 1970-71.

Drainage—The total length of drains, which are all pucca, was 4.5 kilometres, of which 2.4 kilometres were in the area comprising Landour, Barlowganj and Jheripani, 2 kilometres in Kulri, Nand Villa road and Library Bazar, and 91.4 metres in Dhoomanganj Bazar and Company Bagh. All the drains in the city are flushed daily with the help of *bhishtis*.

A great part of the city is sewered. The main lines of sewers are in the Butcher Khana, Barlowganj, Strawberry Bank, Shergarhi, Kulri Sarai, Kulri-Arkadia, Happy Valley and Company Bagh areas.

Education—The education department works under the supervision of the education committee which consists of an education officer and other officials. In the year 1969-70, the number of junior Basic schools for boys was 12 and that for girls 5, the students numbering 869 including 108 girls and 327 respectively. There were three senior Basic schools, one for boys and the others for girls, with 136 and 27 students on rolls respectively. The number of teachers in the junior Basic schools was 90 and of these in the senior Basic schools 17. A sum of Rs 2,27,926 was spent on education in 1969-70.

The municipal board also manages a degree college which came into being in 1963, post-graduate classes being started in 1966. This college is affiliated to the Meerut University. Its enrolment in 1970-71 was 329 including 96 girls and the number of teachers was 24.

Housing Scheme—Two housing schemes, which have reached various stages of maturity, have been taken in hand. One, costing Rs 5,04,000, for the middle-income group was sanctioned by the town and village planner, U.P., in 1970. The government granted a loan of Rs two lacs for this scheme. Six houses have been so far constructed in the Mount Rose estate in the city. The other housing scheme is for the low-income group, but is still under consideration as the site has not yet been selected. The board has also been considering a scheme for the clearance of slums.

Nazul—Nazul land measuring 91,159.20 sq. metres in Landour Bazar and the Butcher Khana area is managed by the board which received an income of Rs 937 from it in 1969-70.

Gardens and Parks—The board maintains a large garden, known as the Municipal Botanical Garden which is situated on Dick Road, and has in it thick deodar and other ornamental trees, besides green lawns surrounded by flower beds. It also has an artificial lake. There are a few canteens in the lower portion of the garden.

Besides this, there are children's parks on the Mall Road and a picnic spot at Gun Hill where people can go by passenger trolley for which the board has established an aerial rope-way since 1969-70.

Milk Supply Centres—Till the year 1969 the supply of milk was made by the city board itself, but since 1970 a private milk supplier has been made responsible for this work. There are three milk supply centres in the town at Landour, Kubri and in the Library area.

Vikasnagar

According to the census of 1971 the area covered by the municipality is 1.40 sq. km. and its population 7,066. The total number of members of the board is 10.

Finances—The total income of the board was Rs 2,81,326 and the expenditure Rs 2,77,446 in 1970-71.

Water-supply—The water-supply work at Vikasnagar was completed in 1962, and the total length of pipeline laid was 2,000 metres in 1970-71. There were 24 public stand posts, 585 private connections and a pucca pond for cattle. For supplying water there is a tube-well with a capacity of 45,459.6 litres per hour and also a tank of 1,13,649 litres capacity. This scheme benefits nearby villages also.

Street Lighting—Formerly kerosene oil lamps were the only means of lighting in the town, but now they have been replaced by electric lighting as a result of supply made in 1959 by the State electricity board. The number of electric tube lights was 100 and that of lamps 75 in 1970-71, when the board spent Rs 7,996.00 under this head.

Public Health and Medical Services—There are two dispensaries in the town, an allopathic dispensary run by the Zila Parishad and the other, an Ayurvedic dispensary, managed by the labour department of the State.

Education—There were two intermediate colleges, one each for boys and girls, 5 nursery schools, and 2 junior Basic and 2 senior Basic schools in the town run by private bodies.

Drainage—The total length of underground drains in the town is 1,828.8 metres. A scheme of drainage costing Rs 7,08,000 has also been prepared by the board.

Rishikesh

Formerly, the local affairs of the town were managed by a notified area committee, established in 1922. The committee derived its income chiefly from toll tax, house tax, and water tax, apart from government grants. In 1949, the town was constituted into a municipality under the U.P. Municipalities Act, 1916, but municipal administration remained in the hands of the district magistrate till 1953, when a regular municipal board was constituted, after the first general elections.

In 1971, the area covered by the municipality was 2.59 sq.km. and its population was 17,646. The municipal area has been divided into six wards the inhabitants of which elect 15 members for a period of five years. The total income of the board amounted to Rs 24,06,481 and expenditure to Rs 24,71,229 in 1970-71.

Water-supply—In 1957, a scheme to supply water was initiated and in 1970-71 there were 124 public stand posts and 1,260 private tap connections in the town. Water was supplied for all the 24 hours, and the total quantity supplied during that year was 1,093 million litres. The work of water-supply is looked after by waterworks engineer who has a staff of 29 persons to assist him. The board spent a sum of Rs 1,29,226 on the waterwork in 1970-71.

Street Lighting—Electricity became available for purposes of street lighting in the year 1950. There were 346 electric lamps in 1970-71 and the municipal board spent an amount of Rs 4,94,461 on this item in the year.

Education—In the year 1970-71, the municipal board managed ten junior Basic schools (six for boys and four for girls) and one senior Basic school for girls, besides one Montessori school. The number of students in these schools was 1,389 and that of teachers 54 and the municipal board spent a sum of Rs 1,72,006 under this head in that year.

Public Health and Sanitation—In the year 1970-71, the municipal board had a staff of one health inspector and four *safai havaldars*, besides a number of scavengers, to attend to the cleansing of streets, roads and drains and to look after the health of residents of the town.

An infectious diseases hospital and a veterinary hospital function under the board, in which the number of patients treated during 1970-71 was 4,072 and that of animals 1,167 respectively. A sum of Rs 2,04,581 was spent by the board on public health and sanitation in that year. The board also maintains a library.

PANCHAYAT RAJ

The panchayat raj system, which has once again ushered in a democratic decentralisation of power and responsibilities, has actually existed in some rudimentary form or the other in the villages of the district for centuries. In its reoriented and reorganised form, evolved after Independence, a three-tier structure of self-governing bodies now obtains in the country side. There is a *gaon* panchayat at the base for every village, a Kshettra Samiti in the middle for every development block, and a Zila Parishad at the apex for the district as a whole. The objective of this three-tier system is to develop initiative in the people in the rural areas and to create opportunities for the emergence of local leadership so that the responsibility for planned development of their areas may be taken over by the people themselves. The institutions within it are linked with each other to ensure a continuous two-way exchange of ideas.

Gaon Panchayats

As India is a predominantly a country of villages it could make real progress only through economic and social betterment of the rural areas. These village self-governing institutions inculcate in the people the habit of taking initiative and active part in the development of the village and the management of their own problems. The establishment of panchayats became inevitable for achieving all-round economic development and growth of democracy.

The U.P. Panchayat Raj Act, 1947, was enforced in Dehra Dun tahsil on the 15th August, 1949, and in Chakrata tahsil on the 14th November, 1952. There were 76 *gaon sabhas* in Dehra Dun tahsil in 1949 and 54 in Chakrata tahsil in 1953. In 1970, there were 228 *gaon sabhas* in the district, 174 being in Dehra Dun tahsil and 54 in Chakrata tahsil. A *gaon sabha* is constituted for a village or group of villages with a minimum population of 250 persons and consists of all the adults of the village. The *gaon* panchayat is the executive body and performs functions mainly relating to village development. The *gaon*

sabha elects a *pradhan* (president) for a term of five years. An *up-pradhan* (vice-president) is elected by the members of *gaon* panchayat for one year only. The number of members of a *gaon* panchayat, who are elected by the *gaon sabha*, is fixed by the government in proportion to the population of the village or villages constituting the *gaon sabha*. Some seats are reserved for members of the Scheduled Castes in the *gaon* panchayats.

The *gaon sabha* is intended to constitute the rudimentary base of an active and conscious peasant democracy and to translate into practice all rural development policies and programmes of the State. The number of members of a *gaon* panchayat (which is elected for a term of 5 years) is fixed between 15 and 30, depending on the size of the *gaon sabha*. The members elect an *up-pradhan* for a term of one year from amongst themselves. The term of the *pradhan* as well as the members is 5 years, which may be extended by the State Government in special circumstances.

Every *gaon* panchayat has the duty in so far as its funds would permit, to make reasonably adequate provision within its jurisdiction for construction, repairs, cleaning and lighting of public streets; medical relief and sanitation and taking curative and preventive measures to remove and to stop the spread of epidemics; upkeep, protection and supervision of any building or other property which may belong to the *gaon sabha* or which may be transferred to it for management; registration of births, deaths and marriages and maintenance of a register for this purpose; removal of encroachments from public streets and places; regulating places for the disposal of dead bodies; regulating markets and fairs under its jurisdiction, except those managed by the State Government or the Zila Parishad; establishing and maintaining primary schools for boys and girls; provision and management of common lands and grazing grounds; construction, repairs and maintenance of wells, tanks and ponds meant for the supply of water for drinking and other purposes; regulating the construction of new buildings or the extension or alteration of existing ones; assisting the development of agriculture, commerce and industry; rendering assistance in extinguishing fire and protecting life and property; administration of civil and criminal justice; maintenance of such records relating to cattle census, population census and other statistics as may be prescribed; maternity and Child Welfare arrangements; allotment of places for storing manure and tanning and curing of hides; and fulfilling any other obligation imposed by or under the Act or any other law on a *gaon sabha*.

The permissive duties of the panchayat relate to planting and maintaining of trees along side public streets and in other public places; treatment and prevention of cattle diseases, including improved breeding and maintenance of pedigree bulls; filling in of insanitary depressions and levelling of land; organizing village volunteer forces for watch and ward and assisting the *gaon* panchayat and *nyaya* panchayat in the discharge of their functions besides serving the summonses and notices issued by them; development of co-operative societies; establishment of improved seeds and implements stores; organising relief against famine or other calamities; maintenance of public libraries, reading-rooms, playgrounds and public radio sets; and promotion of social and

communal harmony and goodwill. The main sources of the finances of panchayats are government grants, voluntary contributions and taxation. A sum of Rs 1,25,133 was collected by these bodies in the district, from taxes, during the period from 1966-67 to 1970-71.

The following statement shows the income of panchayats in the district during 1969-70 :

Source	Amount (in Rs)
Taxes	24,061
Income from fees	150
Income from <i>gaon</i> panchayat lands	45,717
Grants from the government	67,683
Others sources	1,25,725
Total	2,63,336

The following statement shows the total expenditure of the panchayats during that year:

Head	Amount (in Rs)
Construction work:	1,79,571
Office administration	18,520
Other items	38,768
Total	2,36,859

Details regarding the work done by the *gaon* panchayats in the first three Plans are given in the following statement :

Work done	First Five year Plan	Second Five year Plan	Third Five year Plan
1	2	3	4
Construction of roads			
Kutcha (km.)	1,121	598	293
Pakka (km.)	—	—	0.82
Improvement of roads			
Kutcha (km.)	1,761	1,473	850.12
Construction of culverts ...	42	288	121

[Contd.]

1	2	3	4
Construction of Gandhi Platforms	29	21	—
Construction of panchayat ghars	81	81	26
Construction of panchayat ghars-cum-school buildings	18	24	2
Wells for drinking water			
Pakka	88	15	14
Wells for irrigation			
Kutcha	—	—	13
Tube-wells	—	—	1
Kerosene oil lamp posts erected	29	7	—
Libraries and reading rooms	8	—	16
Radio sets purchased	8	106	91

Kshettra Samitis

With the enforcement in the district of the U.P. Kshettra Samitis and Zila Parishads Adhiniyam, 1961, functions that were previously carried out by the block development committees were taken over by the Kshettra Samitis. At present there are 4 Kshettra Samitis, two in Dehra Dun tahsil and 2 in Chakrata tahsil. In tahsil Dehra Dun, in the Doiwala Kshettra Samiti there are 89 *gaon sabhas* and in Sahaspur 85, whereas in the Chakrata tahsil, in the Chakrata Kshettra Samiti there are 31 and in the Kalsi Kshettra Samiti 23 *gaon sabhas*. The main functions of the Kshettra Samitis are to effect improvements in agriculture, co-operation and minor irrigation, animal husbandry, cottage industry, health and sanitation, education and cultural activities, Harijan welfare, planning and statistics, supervision over the *gaon sabhas*, and public works.

The membership of a Kshettra Samiti consists of the *pradhans* of all the *gaon sabhas* in the development block, members of the Zila Parishad elected from the block, members of legislatures (Central and State) elected from the block area or having their residence therein and 2 to 5 representatives of the co-operative institutions in the block. A Kshettra Samiti has to have at least 5 women members. The *pramukh* (chairman) and *up-pramukh* (vice-chairman) are elected by members from amongst themselves. They should not be less than 30 years of age and are elected by secret ballot. The term of office of the members, *pramukhs* and *up-pramukhs* is 5 years which can be extended under special conditions. In 1970, there were 305 members in the Kshettra Samitis, 108 being in the Doiwala, 103 in the Sahaspur, 51 in the Chakrata and 43 in the Kalsi Kshettra Samitis. The Kshettra Samitis give direction and guidance in the preparation of plans by the *gaon sabhas* and sanction their budgets.

Zila Parishad

The district board was established in Dehra Dun in 1883 with a number of official and non-official members and was headed by the district magistrate, one of the deputy collectors acting as its secretary.

From 1923 U.P. District Boards Act, 1922 (Act X of 1922) came to be applied to the district board which then consisted of 16 members, with a chairman and a vice-chairman elected by the members.

The Antarim Zila Parishad replaced the district board in 1958 under an ordinance of the government. It consisted of 42 officials and 30 non-officials, with the district magistrate as Adhyaksha. This was only an interim arrangement and in 1963, under the U.P. Kshettra Samitis and Zila Parishads Adhiniyam, 1961, the word "Antarim" was dropped and the Zila Parishad came into being. The total number of members of the Parishad was 38 in 1969-70. Its usual term is five years but the State Government can prolong its life. The term of the board was to expire in 1968, but was extended by the government till March, 1970. To provide for certain temporary arrangements for the administration of the Zila Parishads, pending a review of their constitution and functions and other matters connected therewith, the U.P. Kshettra Samitis and Zila Parishads (Alpakalika Vyavastha) Adhyadesh, 1970 (U.P. Ordinance no. 6 of 1970), was promulgated on March 23, 1970. Under the ordinance, the powers and functions of the Zila Parishad were vested in the district magistrate for a period of two years.

The functions of the Zila Parishad are virtually the same as used to be the concern of the old district board and the district planning committee, and include implementation of the Five-year Plan schemes of the district and the utilisation of funds allotted by government for this purpose in the fields of agriculture, co-operatives, animal husbandry, education, welfare of children, young people, women, etc., and the levy of taxes by it for certain specific activities for which it is directly responsible.

Finances—The Zila Parishad had an income of Rs 25,68,672 during 1970-71, which included an amount of Rs 21,62,695 received from the government as grants and Rs 32,032 from cattle pounds. The major sources of income of the Zila Parishad are taxes, licence fees, market tolls, rents from property, receipts from cattle pounds, besides grants and loans from the government. The expenditure during that year amounted to Rs 24,05,235, of which Rs 19,43,782 were spent on education (including industrial and technical), Rs 86,656 on general administration, Rs 32,648 on medical and public health and Rs 1,36,018 on public works such as construction and maintenance of roads, bridges and ferries. The receipts and expenditure of the Zila Parishad for the last ten years have been appended in Table V at the end of the chapter.

Public Health and Medical Services—The Zila Parishad maintained 4 allopathic and 4 Ayurvedic dispensaries, the number of patients treated being 95,877 and 6,812 respectively, during 1969-70.

TABLE—I (a)
Receipts (in rupees) Municipal Board, Dehra Dun Refere: ce Page No. 245

Year	Municipal rates and taxes	Realisation under special Acts	Revenue derived from municipal property, etc., other than taxes	Grants and contribution	Miscellaneous	Other sources	Total receipts
1	2	3	4	5	6	7	8
1961-62
1961-62	...	13,77,821	10,545	5,06,078	1,00,385	4,25,475	29,19,821
1962-63	11,226	6,37,783	66,430	11,16,291	39,06,694
1963-64	...	20,85,776	11,601	7,09,134	1,05,240	4,67,320	38,91,416
1964-65	...	25,18,548	11,044	7,50,818	98,399	8,06,953	48,63,285
1965-66	...	24,11,293	9,233	7,65,052	1,00,444	13,85,045	57,19,800
1966-67	...	24,74,272	13,348	7,79,472	6,34,807	10,02,833	50,14,454
1967-68	...	24,90,445	13,235	8,06,866	7,96,697	8,20,827	55,28,447
1968-69	...	28,18,401	17,999	9,01,780	2,62,517	18,03,059	64,15,925
1969-70	...	30,21,770	18,331	11,07,042	1,08,708	3,72,295	55,59,714
1970-71	...	31,70,122	16,755	10,21,148	1,05,994	15,56,186	68,83,077

TABLE—I (b)

Expenditure (in rupees), Municipal Board, Dehra Dun

Reference Page No. 245

Year	General ad- ministration and collec- tion charges	Public safety	Public health and conve- nience	Education	Grants and contribu- tions	Miscella- neous	Other heads	Total ex- penditure
1	2	3	4	5	6	7	8	9
1961-62	14,44,554	3,54,704	4,970	2,42,790	5,02,312	29,51,045
1962-63	21,44,513	3,88,923	22,551	2,34,556	5,93,492	38,54,722
1963-64	15,45,862	4,08,847	3,600	3,09,942	7,37,184	34,47,234
1964-65	23,46,450	4,32,185	7,831	3,46,840	7,43,932	45,23,632
1965-66	34,03,079	5,33,011	39,627	4,98,902	5,84,313	57,10,009
1966-67	28,26,971	6,86,080	1,045	5,16,818	10,79,336	57,59,116
1967-68	28,01,095	7,26,121	4,752	2,98,910	5,38,017	51,11,039
1968-69	35,96,093	6,26,763	4,475	3,39,221	4,41,755	57,07,986
1969-70	38,83,165	8,01,299	6,700	4,97,359	5,34,184	65,80,430
1970-71	38,59,379	8,21,616	6,884	3,10,580	13,40,409	70,68,535

TABLE—II (b)
Expenditure (in rupees), Municipal Board, Mussoorie Reference Page No. 245

Year	General administra- tion and collection charges	Public safety	Public health and convenience	Education	Grants and contribu- tions	Miscella- neous	Other heads	Total expendi- ture
1	2	3	4	5	6	7	8	9
1960-61	...	24,000	5,99,064	91,284	16,242	63,502	36,84,169	46,33,
1961-62	...	24,000	7,45,846	1,10,368	12,826	2,25,319	52,03,425	64,91,540
1962-63	...	24,000	8,14,886	1,08,845	14,615	2,52,185	41,88,677	55,87,185
1963-64	...	24,000	7,26,784	1,91,387	16,798	2,58,994	44,18,748	58,14,655
1964-65	...	37,191	7,54,804	2,65,759	31,700	4,09,978	49,71,414	66,04,305
1965-66	...	37,191	9,28,932	4,05,064	28,634	2,75,001	53,00,132	72,40,799
1966-67	...	37,191	9,86,544	5,49,419	48,899	2,98,634	61,82,708	82,60,330
1967-68	...	50,000	10,17,757	3,97,159	47,814	3,13,964	65,52,750	86,90,154
1968-69	...	98,418	13,07,016	3,42,268	47,105	4,35,097	75,96,585	1,01,56,157
1969-70	...	53,292	20,26,074	4,14,228	41,194	9,18,245	92,66,477	1,30,38,920
1970-71	...	53,175	20,42,059	4,67,317	31,708	6,03,686	1,13,80,166	1,48,59,200

TABLE—III (a)
Receipts (in rupees), Municipal Board, Vikasnagar Reference Page No. 245

Year			Municipal rates and taxes	Grants and contributions	Revenue derived from municipal property, etc., other than taxes	Total receipts
1	2	3	4	5		
1961-62	30,967	9,397	2,340	42,704
1962-63	49,226	14,503	7,660	71,389
1963-64	62,113	10,086	6,620	78,819
1964-65	67,902	13,378	2,358	83,638
1965-66	86,092	40,434	3,854	1,30,380
1966-67	98,444	34,734	13,286	1,46,464
1967-68	1,08,697	99,997	20,435	2,29,129
1968-69	1,47,005	44,723	8,079	1,99,807
1969-70	1,83,048	23,713	21,462	2,28,223
1970-71	1,68,886	53,447	58,993	2,81,326

TABLE—III (b)

Expenditure (in rupees), Municipal Board, Vikasnagar Reference Page No. 245

Year	General administra- tion and collection charges	Public safety	Public health and convenience	Education	Grants and contribu- tions	Miscella- neous (water supply)	Other heads	Total ex- penditure
1	2	3	4	5	6	7	8	9
1961-62	9,032	6,536	180	1,788	1,212	35,130
1962-63	11,648	6,330	332	7,413	12,082	61,194
1963-64	10,674	3,089	294	26,144	19,245	82,305
1964-65	13,263	9,994	1,222	21,612	2,785	75,437
1965-66	15,787	16,276	1,331	27,327	23,657	1,15,401
1966-67	18,580	29,941	844	45,240	20,425	1,55,371
1967-68	21,520	46,839	1,077	32,597	7,058	1,58,437
1968-69	29,749	21,817	847	26,410	5,357	1,39,851
1969-70	29,527	44,021	1,324	28,153	68,694	2,27,563
1970-71	26,492	47,663	2,166	31,191	1,00,461	2,77,446

TABLE IV—(a)
Receipt (in rupees), Municipal Board, Rishikesh Reference Page No. 245

Year				Municipal rates and taxes	Revenue derived from municipal property, etc., other than taxes	Grants and contribu- tions	Miscella- neous	Other sources	Total receipts
1	2	3	4	5	6	7			
1960-61	1,57,460	2,18,063	48,743	5,218	55,965	4,85,449
1961-62	2,25,677	2,32,774	1,24,243	18,042	39,153	6,39,889
1962-63	2,19,427	2,85,407	1,08,565	18,320	55,188	6,86,997
1963-64	2,31,794	3,42,874	79,972	44,727	56,517	7,55,884
1964-65	3,09,952	3,75,505	1,19,226	29,230	3,62,745	11,96,748
1965-66	3,53,436	4,15,418	78,895	60,970	8,26,286	17,35,005
1966-67	5,06,211	5,60,729	1,53,561	11,694	3,22,360	14,54,555
1967-68	5,43,100	5,99,215	2,37,078	1,75,978	8,95,998	24,51,369
1968-69	6,37,518	6,57,956	3,85,144	1,53,276	3,34,988	21,68,882
1969-70	7,57,777	7,46,120	3,99,023	37,440	5,82,101	25,22,461
1970-71	7,31,375	8,40,956	2,42,272	1,68,231	4,23,597	24,06,431

TABLE—IV (b)
Expenditure (in rupees), Municipal Board, Rishukesh Reference Page No. 245

Year	General administra- tion and collection charges	Public safety	Public health and convenience	Education	Grants and contribu- tions	Miscella- neous	Other heads	Total ex- penditure		
1	2	3	4	5	6	7	8	9		
1960-61	57,537	1,38,884	1,67,527	20,168	1,200	9,850	89,117	4,84,283
1961-62	62,494	1,95,794	1,89,611	30,313	1,280	12,564	1,05,378	5,97,434
1962-63	58,962	1,96,681	2,24,884	36,970	1,600	17,014	1,08,717	6,39,828
1963-64	62,278	2,21,253	2,45,745	71,915	1,680	20,321	1,09,069	7,32,261
1964-65	74,624	2,44,302	5,67,583	72,286	1,820	33,051	1,23,005	11,16,671
1965-66	87,631	3,09,181	10,94,735	1,18,240	2,100	46,231	1,93,704	18,51,822
1966-67	1,12,660	3,98,510	3,60,068	1,26,541	—	60,060	2,15,589	12,73,428
1967-68	1,40,013	4,80,103	4,06,635	1,24,251	—	3,79,724	9,89,108	25,19,834
1968-69	1,29,709	5,19,479	5,12,367	1,44,768	—	2,92,563	4,95,326	20,94,212
1969-70	1,33,366	5,63,381	6,01,208	1,76,380	—	1,16,457	9,44,065	25,34,807
1970-71	1,36,005	6,08,397	4,19,729	1,72,023	—	2,55,894	8,79,181	24,71,229

TABLE—V (a)
Receipts (in rupees) Zila Parishad

Reference Page No. 257

Year	1	2	3	4	5	6	7
		Government grants	Education (including industrial and technical)	Medical and public health	Cattle pounds	Other sources	Total receipts
1961-62	15,446	1,27,015	12,23,100
1962-63	20,480	1,32,518	12,48,256
1963-64	30	22,902	1,30,676	12,50,338
1964-65	62	25,137	1,47,418	14,38,125
1965-66	25	19,340	1,62,667	17,95,631
1966-67	1,553	20,729	1,48,585	18,72,614
1967-68	280	21,359	2,98,389	19,24,300
1968-69	116	29,175	2,38,890	19,24,081
1969-70	31	31,926	3,23,085	24,48,417
1970-71	1,248	32,032	3,35,669	25,68,672

TABLE—V (b)
Expenditure (in rupees), Zila Parishad

Reference Page No. 257

Year	General administra- tion and collection charges	Education (including industrial and technical)	Medical and public health	Public works	Other heads	Total ex- penditure
1	2	3	4	5	6	7
1961-62
1962-63
1963-64
1964-65
1965-66
1966-67
1967-68
1968-69
1969-70
1970-71

CHAPTER XV

EDUCATION AND CULTURE

The Dun valley, a gateway to Uttarakhand, seems to have occupied an important place in the cultural and educational life of the country. Since ancient times Uttarakhand, which had been full of *ashramas* (hermitages), attracted a large number of saints and scholars and has been a stronghold of religion, Sanskrit learning and culture.

The visit of Rama to Rishikesh, on the advice of the sage Vasishtha for doing penance,¹ gives but a small glimpse into the piety this region enjoyed even in the most ancient days. Vairat Garh or Garhi, near Kalsi in Jaunsar Bawar, which now is in ruins, was once reportedly the capital of the great kingdom of Virata where, according to the *Mahabharata*,² Arjuna, one of the Pandavas during the year spent in disguise, gave instruction in the fine arts to princess Uttara.³ The visit of Dronacharya, a renowned scholar and guru of the Pandavas, at Dwara in Deo Dhar Parbat near Dehra,⁴ bears testimony to the fact that spiritual education and training of a very high order was imparted by savants and sages who lived in this area during the Mahabharata period.

It may be presumed that in this area, too, as in other parts of the country, the education of child started in ancient times, with the ceremony of *vidyarambha* at the age of five. The second educational ceremony, which gave a new turn to the life of the pupil, was *upanayana* i.e. "going near a teacher." The pupil was allowed to pursue the studies of his choice, accompanied by special teaching in the *Vedas* and the traditional branches of learning such as *itihasa-purana* (legends and ancient lore), grammar, *philology*, *chhandashastra* (prosody), *arthashastra* (political economy), *dharmashastra* (law), *rashi* (mathematics), *jyotish* (astronomy and astrology) *sastravidya* (statecraft and military science) and *Ayurveda* (the science of medicine) under the personal supervision and guidance of the guru.⁵

In those days education was sought for its own sake and not for earning livelihood. It was imparted with the best of care and was free of cost. The individual was the chief concern and centre of this system and development of character and acquisition of learning were the main objects. The teacher was content with whatever was offered to him by his pupils at the end of their studies, which gave a chance to the poorest in society to derive the benefits of education. The student on his own part assisted the teacher in his household and farm work, not to remunerate the latter, but to acquire habits of obedience and willingness to help and serve.

¹Williams, G.R.C. : *Historical and Statistical Memoir of Dehra Doon*, (Roorkee, 1874), p. 72

²Raturi, H.K. : *Garhwal Ka Itihasa*, (Dehra Dun, 1928), p. 288

³*Mahabharat*, Virata Parva, 118/12

⁴Williams, *op. cit.*, p. 72

⁵Altekar, A.S. : *Education in Ancient India*, (Varanasi) 1957, p. 264

The edict at Kalsi also testifies to the fact that education flourished in this part as in other parts of Asoka's empire. The Buddhist system of instruction comprised recitation, holding of examinations, making exhortation and explaining the *dhammas*. Individual attention had given way to collective attention.¹

In course of time some *pathshalas* (schools) came into being and were attached to the temples. These gave instruction in regional languages, Sanskrit and astrology, in addition to the subjects ordinarily taught. There were some '*bazar*' schools of commercial type for people of the business communities.²

The people of the Jaunsar Bawar pargana have a different cultural heritage of their own based on their traditional form of education. The aim of education has been to make children more efficient in terms of their daily life and pursuits and to add to the income of the family. The indigenous system of education had a caste and economic basis in which every child was taught the traditional calling by his elders.

One such traditional sphere of training was Kashmiri *vidya*, a magical-religious practice. It purported to develop the art of predicting the future and controlling evil spirits. The curriculum included methods of detecting and determining the activities of evil spirits and supernatural powers like *bhut* and *dankani*, ways to get rid of their influence, and astrology. Having a prescribed curriculum and a special type of script it was a form of vocational training. In order to give professional competency the children of all castes were given instruction on the lines of the occupation practised by their parents, as for example a Bajgi boy used to start beating drums and playing other instruments from an early age and the son of a Badi or Bidhai was taught the art of carpentry. The villagers also practised the method of teaching or training on an individual basis because it made them stick to their old ways of life and moulded children according to the needs of the family.³

With the advent of the British, the indigenous system of education gradually gave way to governmental institutions, known as *tahsili* schools. These institutions were started in 1845 by James Thomason, the then lieutenant governor of North-Western Provinces. His conception of education was not confined to looking after the interest of higher classes only but embraced the whole population, especially the peasantry, so that they might be able to understand their rights on which the future of their lives and well-being depended. For this purpose a scheme was chalked out to establish a government school at the headquarters of every tahsil. Thomason desired that people should be educated through the medium of regional languages.⁴ The course of study comprised the three R's, a little geography, history, agriculture and sanitation.⁵

¹Majumdar, R.C. : *History and Culture of India*, Vol. I, p. 85

²Hunter, Sir William : *Report of the Indian Education Commission of 1882*, p. 72

³Majumdar, D.N. : *Himalayan Polyandry*, (Bombay, 1962), pp. 220-23

⁴Hunter, Sir W. : *op. cit.*, p. 105

⁵Sen, J.M. : *History of Elementary Education in India*, p. 112

Christian missionaries also took some initiative in extending the means of education, by establishing similar institutions. The Dehra Mission, a branch of the American Mission of Ludhiana, started in 1853, actively worked for spreading education. A high school was started by it, though it had to face deliberate competition from a government school. The rival institution did not thrive long, leaving the educational field almost exclusively to the Mission. In course of time it became the most important institution, known as the American Presbyterian school. In order to prepare students for higher section, the Mission started a preparatory school. The necessity of spreading education among Christian girls was also felt and the Dehra Christian Girls' boarding school was started with 14 students. Williams wrote, "Beyond the sphere of the Dehra Mission, education cannot be said to have made much general progress since the days of Major Young, who, on opening a school at his own expense in the Gorkha lines, found that he could induce no one to attend it except soldiers' children."¹ He further observed that except those who came under the influence of the Mission people of this region in 1874 were extremely backward in education. There was only one *tahsili* school at Dehra Dun, attended by about 30 students and another at Kalsi with a daily attendance of about 28 pupils. The number of village schools was three, with a total of 78 boys. Girl's school existed at Dehra Dun and Lodpur.

In Jaunsar Bawar, life was so hard and the need of hands to cope with the voluminous work both inside and outside the household so great, that even children of five or six years of age had to be actively engaged on it. People, therefore, did not avail themselves of the facilities of education provided by the government. In 1860, Robertson reported, "the *sianas* set their faces so determinedly against having schools that it is useless to attempt to establish them."² They thought that their children would thus become incompetent for the office of *siyana*.³ Despite all these difficulties, three village schools were established in 1871-72, to which five more were added in 1872-73.⁴

In the beginning of the present century the *tahsili* school of Kalsi was degraded to the primary standard. Besides a middle school at Dehra Dun, another middle school was opened at Bhogpur. There were two high schools for boys at Dehra Dun, the American Presbyterian and the Dayanand Anglo-Vernacular High School, and three for girls—the Mission School, the Government Model School and the Kanya Pathshala. The district board maintained 33 village schools and aided 16 others, one of which, at Bhogpur, being a girls school. The municipal board of Dehra Dun assisted the Mufid-i-am school and the Mahajani *pathshala*. There were also a number of institutions for the instruction of European and Eurasian boys and girls, some of which achieved great reputation. Of these the St George College, Barlowganj, was started in 1853 by the Archbishop of Patna. Later on, the management of this institution was transferred to the Capuchin Fathers, under whose supervision it remained till 1894, when Rev. Br. Stapleton was appointed its principal. The college continued to flourish under

¹Williams, *op. cit.*, p. 44

²Ibid., p. 307

³Majumdar, R.C. : *op. cit.*, p. 232

⁴Williams, *op. cit.*, p. 307

the management of the brothers of St Patrick. The Woodstock High School, Mussoorie, was started in 1854 as a Protestant Girls' School by the London Society for the promotion of female education in the east. In 1856, the Woodstock estate in Landour was purchased and the school shifted there, and in 1873, the American Presbyterian Mission took over its management. The St Joseph's Convent Day School, Dehra Dun, was started in 1863, as a winter resort for those children who were left after the Convent School of Mussoorie had closed for the season. A day school was opened specially for the daughters of the settlers in 1901. The school curriculum included all the three sections primary, middle and high. The Caineville House School, Mussoorie, was established as a high school for girls in 1864, through the efforts of Archdeacon Pratt who raised a sum of Rs 60,000 by contribution and purchased the Caineville estate in 1861. The property was transferred to the Bishop and Archdeacon of Calcutta as trustees of the Diocesan board of education. The institution made rapid progress and by 1871 it was in a flourishing condition and had an endowment of Rs 21,900, invested in government securities. Later on, the condition of the institution deteriorated and it was being run at a loss. In the beginning of the twentieth century the condition of the school however, improved by means of a government grant-in-aid. The Oak Grove School, Mussoorie was founded in 1888, by the Director of the East Indian Railway Company, for the benefit of the children of its European employees, in the Oak Grove estate. In this institution the children of the employees of the North-Western and other railway companies were also admitted. The number of students rose to such an extent that in 1896 it was found necessary to purchase the adjoining Jharipani estate where a separate school for girls was established. Attention was also given to extra curricular activities. A swimming pool and a hospital were provided in the boys' section. In 1911, the school had 240 boys and 150 girls on roll.

The Modern School was established in 1896, mainly with the purpose of preparing boys going to England for further studies. It was a kind of preparatory school aiming to train students to adapt themselves for education in England. Another institution, the Woodland High School, was started by T.H. Garlat, in 1898, with the aim of providing education to children of European descent in order to give them educational facilities identical to those at home.

The Central Forest School at Dehra Dun was established in 1878, with the object that "a new era of forestry would commence and a new impulse would be given to progress by the professional education of forest rangers and foresters." Another institution, the 'Prince of Wales' Royal Indian Military College, was established in 1922, with the object of providing adequate facilities for preliminary training of Indians to fit them to enter the Royal Military College, Sandhurst.

LITERACY AND EDUCATION

In 1881, the percentage of males able to read and write was 7.6 and that of females 1.0, rising by 1891 to 10.0 and 1.5 respectively. In 1901, that of the former was 10.7 and that of the latter 2.0. The census of 1911 revealed that the percentage of literate males was 14.2 and that

of literate females 3.1. In 1921, the percentages of literacy among males and females were 16.0 and 4.6 respectively, and in 1931, they were 17.2 and 4.6 respectively. The reason for low female literacy might be economic backwardness and lack of interest in education for its own sake. The misgivings against women working and leading independent lives, and the lack of appropriate avenues for them, also operated adversely against the advancement of female literacy. According to the census of 1951, the literates formed a percentage of 39.4 in the case of males and 21.3 in the case of females. By this time, however, the value of literacy had begun to be gradually realised and led to increase in this percentage. The national awakening culminating in the Independence of the country made people realise the value of education more and more. The census figures of 1961 reveal that the percentages of literate and educated persons were 47.9 for males and 26.8 for females.

Dehra Dun district ranks first in literacy in the whole State, the percentage of literacy in the total population being 38.7 as against the State average of 17.7. The credit for this goes to Dehra Dun tahsil where alone the numbers of literate and educated males and females in 1961 were 34,827 and 10,513 respectively, as Dehra Dun city and Mussoorie abound in educational institutions. In Chakrata tahsil however, the numbers of literate and educated males and females were 6,543 and 762 respectively, because in Jaunsar Bawar education has been at its lowest mainly due to the great hardships imposed by nature on the socio-economic life of the people; female education there is still almost negligible. The following statement gives the number of persons of different educational standards and of literates and illiterates according to the census of 1961:

Educational standard				Persons	Males	Females
Urban						
Total population	...	...	...	1,97,835	1,15,240	82,595
Illiterate	...	...	...	84,249	40,321	43,928
Literate without educational level	...	...	...	49,703	30,808	18,895
General Education						
Primary or junior Basic	...	...	...	36,728	23,429	13,299
Matriculation or higher secondary	...	...	...	20,211	15,276	4,935
Technical diploma not equal to degree	...	...	...	88	23	65
Non-technical diploma not equal to degree	...	...	...	307	117	190
University degree or post-graduate degree other than technical degree	...	...	...	5,709	4,667	1,042
Technical/Professional						
Engineering	...	...	...	210	210	—
Medicine	...	...	...	166	137	29
Agriculture	...	...	...	3	3	—
Veterinary and dairying	...	...	...	1	1	—
Technology	...	...	...	—	—	—
Teaching	...	...	...	441	229	212
Others	...	...	...	19	19	—
Total literate and educated	...	...	...	1,10,586	74,919	35,667
Rural						
Total population	...	...	...	2,31,179	1,27,747	1,03,432
Illiterate	...	...	...	1,78,534	86,377	92,157
Literate without educational level	...	...	...	33,963	25,740	8,223
Primary or junior Basic	...	...	...	14,987	12,352	2,635
Matriculation and above	...	...	...	3,695	3,278	417
Total literate and educated	...	...	...	52,645	41,370	11,275

GENERAL EDUCATION

General education now starts with the pre-junior Basic or the nursery and ends with the university stage. In 1970-71, the number of pre-junior Basic schools in the district was 11 of which one was run by the State Government and the remaining 10 were managed by private bodies. The number of junior Basic schools for boys was 428 and that for girls 86. There were 51 senior Basic schools, of which 17 were for girls. The higher secondary schools up to class X numbered 7 and those up to class XII, 80. The number of degree colleges, including post graduate colleges was six. The number of schools and students in institutions up to higher secondary stage from 1961-62 to 1970-71 is given in Statement I at the end of the chapter.

Junior and Senior Basic Stage

Basic education, in accordance with the Wardha scheme enunciated by Gandhiji, was adopted by the State Government in 1939. It comprises a junior Basic stage from classes I to V and a senior Basic stage from classes VI to VIII. Under this scheme education is free and compulsory and imparted through the medium of the mother-tongue, and centres around some useful handicraft to enable the child to become self-supporting from the very beginning. The local bodies, (the Zila Parishad and the municipal boards), within their own jurisdictions are responsible for education in these stages.

Education within the municipal limits of Dehra Dun is managed by the education department of the municipal board, and is supervised by a superintendent of education, assisted by 3 assistant attendance officers. Compulsory education has been in force in the schools of the Dehra Dun municipal board since 1948. In 1969-70, the board managed 34 junior Basic schools for boys, with 4,958 students including 848 girls on roll, and 16 junior Basic schools for girls, with 2,748 students including 98 boys. There were 209 teachers of whom 76 were women.

In the municipality of Mussoorie, education is supervised by a sub-committee known as the education committee, and in 1969-70, there were 17 junior Basic schools of which 12 were for boys and 5 for girls, having 1,196 students on roll and the number of teachers was 90. It also managed 3 senior Basic schools, two of which were for girls. It employed 17 teachers in all these institutions.

In 1970-71, the municipal board, Rishikesh, managed 5 junior Basic schools for boys and 5 for girls, having 776 boys and 568 girls on their rolls respectively. It also managed one senior Basic school for girls with 98 students on roll. The board employed 23 men and 35 women teachers.

The municipal board of Vikasnagar did not maintain or manage any pre-junior, junior Basic or senior Basic schools in 1971-72.

The Zila Parishad is responsible for education in the rural areas of the district, a deputy inspector of schools being in charge of boys'

education and deputy inspectress for girls'. In 1970-71, the Zila Parishad maintained 864 junior Basic schools for boys with 22,327 students and 60 for girls with 13,278 students, there were 3 junior Basic schools for boys which were aided by the Zila Parishad, and had 143 boys and 48 girls on rolls. The number of senior Basic schools for boys managed by the Zila Parishad was 31 with 2,581 pupils and that of girls 11 with 527 pupils. In addition to these one senior Basic school for boys with 22 students and 2 senior Basic schools for girls with 125 girls were aided by the Zila Parishad. The number of teachers in all the junior Basic schools for boys was 894 and that in girls' schools was 168. The number of teachers in senior Basic schools for boys and girls were 81 and 28 respectively.

In order to improve the overall administration as well as its academic standards Basic education has been nationalised, since July, 1972, which resulted in the transference of the management of Basic schools from the local bodies to the board of Basic education headed by a Director at the State level, and at the district level to the Zila Siksha Samiti under a Basic Siksha Adhikari and at the village level in the Gaon Siksha Samiti.

Re-orientation Scheme

This scheme was introduced in the district with the object of training students in agriculture, creating in them a feeling for the dignity of labour and improving the finances of the institutions. There were 21 secondary schools in the district teaching agriculture up to class VIII, in 1970-71.

Under the directive principles contained in the Constitution of India, the government has agreed to levy no tuition fee up to class V for boys and class X for girls as a step towards free and ultimately compulsory education for all boys and girls up to certain stage. In implementing this scheme there is no difficulty for government schools, but non-governmental institutions are compensated for loss of fee by a grant given by the government which is based on the standard rate of fee prescribed by the government.

Secondary Education

Secondary education, as obtaining in the district, leads from the senior Basic stage to the collegiate. At first, secondary education was imparted in the Zila schools (which were maintained by the government) but it has subsequently undergone a number of changes. With the establishment of the board of high school and intermediate education, U.P., in 1921, the high school examination began to be held at the end of class X stage and the intermediate examination at that of class XII stage. With the re-organisation of education in 1948, classes III to V were transferred to the junior Basic schools, classes VI to VIII to senior Basic schools and the high school stage starting with class IX was redesignated as higher secondary. Thus higher secondary education covers education beyond the junior Basic stage up to class XII.

The district has 37 higher secondary schools, most of which are managed by private agencies receiving financial aid from the State Government.

A list of secondary institutions with the years of establishment and strength of students and teachers is given in Statement II at the end of this chapter.

In addition to these institutions, there are a number of public schools. The courses of study are devised to prepare the students for the Indian school certificate examination. They are affiliated to the Cambridge University, through the council for the Indian school certificate examination, New Delhi. Some of these institutions have achieved great reputation.

The Convent of Jesus and Mary, Waverly, Mussoorie, has maintained a high standard throughout in preparing children for the Indian school certificate of the Cambridge University and the Trinity College of Music, London. During 1970-71, it had a staff of 20 teachers and an enrolment of 350 students.

The Woodstock High School, Mussoorie, started in 1854, became a co-educational institution in 1922, when an American curriculum was also added. This institution has attained an international status and American and other foreign students have been attending the school. It is managed by a registered board of directors. The school offers a twelve-year American high school programme. There were about 380 students and 45 teachers in it in 1971.

The Oak Grove School, Mussoorie, has two sections, the junior (classes I to IV), and the senior (classes V to XI), there being separate arrangement for boys and girls in the latter. Each has its own playground, and a separate swimming pool. The institution is managed by a board of governors consisting of nine members, with the general manager, Northern Railway, as its chairman. The number of students in 1971 was 514, including 159 girls, and the strength of the teaching staff 37, comprising 23 female and 14 male teachers, the annual income being Rs 3,91,000.

The Convent of Jesus and Mary, Dehra Dun, after 1946, became a day school. It had 1,200 students and 41 teachers in 1970 when the income was Rs 25,000 per month.

The St Joseph's Academy, Dehra Dun, was established by Reverend Bro. A.M. Keogh in 1934. In 1970 the number of students was 1,259 and that of teachers 51.

The Wynberg-Allen School, Mussoorie, was originally founded for poor and destitute Anglo-Indian children in 1888. Since 1947, its doors have been opened to needy children of all communities from India and abroad. The numbers of teachers and students were 34 and 500 respectively and the income amounted to Rs 10,47,000 in 1970-71.

The Cambrian Hall, Dehra Dun, was established by Mainwaring and Shashi Shum Sher as a co-educational institution in 1954 in the palace of Shum Sher Jung Bahadur Rana, the late prime minister of Nepal. It is a residential institution. In 1970-71, the strength of students and teachers was 1,009 and 45 respectively. The income in that year amounted to Rs 2,49,849. It prepares students both for the Indian school certificate and the high school examinations.

The Dun School, Dehra Dun, is the outcome of the inspiration of the Indian public school society, headed by P.R. Das. It was started in 1935 as a residential institution. In 1970-71 it had a staff of 36 teachers and an enrolment of 505 students. It admits only a limited number so that the staff may not be overburdened and personal attention may be paid to every student. The institution has achieved the distinction of maintaining a very high standard for which strict discipline is maintained. Vast playing fields and spacious class rooms have been provided.

Female Education

After the establishment of the British rule in the district, Dehra Dun city and Mussoorie made much headway in female education. A number of institutions were opened in the mid of the 19th century. The Protestant Girls' School was established by the London society for the promotion of female education in 1854. The Caneville House and the Oak Grove Schools were opened at Mussoorie in 1864 and 1886 respectively. In 1901, the European settlers with their own efforts, established a Day School at Mussoorie, for the education of their daughters. There had been no appreciable development in the institutions for the European girls in the end of the 19th century. But the number of students continued to rise till 1903-04 at both primary and secondary stages when the number of students of the former rose to 627 and that of the latter to 164. From this year till 1915-16 the number of students in primary schools decreased to 426 and there was no student, as mentioned, in secondary classes. The number of students receiving secondary education in 1916-17 came to 83 but those receiving primary education were reduced to 317. Henceforward the number of students in both stages fluctuated. The district maintained the high incidence of literacy among girls in the 20th century as well. The credit for this goes to a large number of Europeans residing here and to some enterprising and progressive Indians who had settled here for economic reasons.

EDUCATION OF SCHEDULED CASTES AND OTHER BACKWARD CLASSES

To improve the condition of the Scheduled Castes and Other Backward Classes, the State Government has directed particular attention to diffusing education among them. In 1960-61, work relating to higher education of these classes was transferred from the headquarters at Lucknow to the district, and in 1963, it was transferred from the district inspector of schools to the district Harijan and social welfare officer up to the pre-high school stage. Many incentives are given to encourage the spread of education among these people.

The following statement gives the number of persons (Scheduled Castes and Other Backward Classes) of different educational standards, and of literates and illiterates according to the census of 1961 :

Educational Standard	Persons	Males	Females
Urban			
Total population	16,864	9,187	7,177
Illiterate	12,500	5,980	6,520
Literate without educational level	2,677	2,164	518
General Education			
Primary or junior Basic	910	778	182
Matriculation or higher secondary	222	210	12
University degree other than technical degree	55	55	—
Rural			
Total population	28,722	15,951	12,771
Illiterate	23,811	11,719	12,092
Literate without educational level	8,507	3,098	414
Primary or junior Basic	1,096	1,081	65
Matriculation or higher secondary	108	108	—

Boys of these communities are exempted from payment of fees up to class VI and girls up to class X, the wards of those whose monthly income is below Rs 200 also being exempted from payment of fees at the higher stages. Other facilities made available are the relaxation of the time and upper age limit for admission to certain educational institutions, free tuition, stipends, scholarships and financial assistance for the purchase of books and stationery and free hostel facilities. The number of students of the Scheduled Castes and Other Backward Classes in 1970-71 was as follows :

Schools	Scheduled Castes		Other Backward Classes	
	Boys	Girls	Boys	Girls
Junior Basic	6,542	2,611	2,970	1,277
Senior Basic	554	167	221	90
Higher secondary (up to class X)	221	61	45	18
Higher secondary (up to class XII)	678	88	32	18

Financial assistance to the extent of Rs 58,912 in the form of 761 stipends and Rs 12,650 in the form of 246 stipends were given respectively to the students belonging to the Scheduled Castes and Other Backward Classes in 1970-71.

Higher Education

There are in the district six degree colleges, of which two are exclusively for girls and the remaining co-educational.

The Mahadevi Kanya Pathshala College, Dehra Dun, was founded in 1902 as a *pathshala* by Mahadevi in memory of her husband, for the physical, mental and spiritual development of girls. It was raised to a high school in 1914, to an intermediate college in 1938 and to a degree college in 1958. It started M.A. classes in 1965. The strength of students during 1970-71 were 1,082 in the degree and post-graduate classes and that of teachers 42. It is the only post-graduate college for women. The institution provides hostel facilities and maintains a well-equipped library having over 20,000 books, besides providing games and sports facilities.

The D.A.V. Post-graduate College, Dehra Dun, was started as model school in 1904. It grew up into a full-fledged intermediate college in 1922 and a degree college in 1946. By 1950, it had become a post-graduate college. It imparts instruction up to M.A., M.Sc., and M. Com. examinations and also provides courses of study leading to LL.B., and B.Ed. degrees. It is a co-educational institution and is affiliated to the University of Meerut. In 1970-71, it had 3,700 students on roll, the number of teachers being 135. It has its own building and hostel and library facilities are also available in this college. The students of this institution often distinguish themselves in the field of games and sports as well.

The Municipal Post-graduate College, Mussoorie, came into being in the year 1963 and M.A. classes were started in 1966. It is affiliated to the Meerut University and is managed by the municipal board, Mussoorie, receiving grants from the government. In 1970-71, it had 329 students on roll including 96 girls. There were 24 teachers of whom 3 were women.

The Dayanand Brijendra Swaroop Degree College, Dehra Dun was started in 1961. It was raised to the status of a post-graduate college in 1964. The number of students was 1,662 in 1970-71 when it had 51 teachers. Besides having its own building the institution has two well-equipped hostels, one each for boys and girls, an equipped library having well over 11,000 books and a games department for providing games and sports facilities for the students.

The Sri Guru Ram Rai Degree College, Dehra Dun, was established in 1960. It started M.Sc. classes in 1965. No tuition fee is charged from students. In 1971-72, the college had 540 students on roll and 87 teachers. Adequate arrangements are made for games and sports and the institution is also furnished with a hostel and a library.

The Kanya Gurukul Mahavidyalaya, Dehra Dun, was founded in 1923, as a primary school by Acharya Ram Deva. At present it is a constituent college of the Gurukul Kangri Vishwavidyalaya, Hardwar, and imparts education up to the Vidyalankar degree which is considered to be equivalent to B.A. It is a purely residential institution and no tuition fee is charged. As an institution for girls' education, it has a good reputation. In 1970-71, the number of students in it was 205 and that of teachers 25. Apart from their achievements in the academic sphere, the girls of this institution distinguish themselves in the field of games and sports as well. In 1966-67 they achieved outstanding success in the district and the State rally and received two gold shields. Recently in 1970-71, they once again created a record by winning the championship of the district rally.

PROFESSIONAL AND TECHNICAL EDUCATION

The Dayanand Women's Training College, Dehra Dun, was started in 1961 by the Dayanand Anglo-Vedic College Trust and Management Society, U.P., to meet the pressing demand for training women students of Dehra Dun and adjoining districts for the Bachelor of Education examination. It is affiliated to the University of Meerut and the period of training for B. Ed. is one year. In 1970-71, the number of trainees was 98, and that of lecturers 14. It prepares students for the B.A. degree as well.

The Rajkiya Diksha Vidyalaya, Jharipani, Mussoorie, was founded in 1949. The course is of one year's duration after which the Basic Teachers' Certificate is awarded. A practising school (of junior high school status) is also attached to it. In 1970-71, the number of teachers and trainees was 11 and 98 respectively.

The Rajkiya Diksha Vidyalaya, Dehra Dun, also a training school, was established in 1961 and awards the Basic Teachers' Certificate after the completion of one year's course. It had 93 trainees on roll and 10 teachers in 1970-71.

The Government Industrial and Technical Institute, Dehra Dun, was established in 1952 as a polytechnic with a view to meeting the increasing demand for technically skilled craftsmen. In the beginning, classes for electric wiremen, motor mechanics and carpentry were started. The high school technical scheme as prescribed by the board of high school and intermediate education, U.P., Allahabad, was started in 1954. To make it more popular and useful for students, the director of industries, U.P., upgraded the wiremen course to that of electrician in 1953, which was again upgraded to the electrical supervisor course of two years' duration in 1958. Another course of radio mechanics of two years' duration was introduced in 1961, thus making available five courses, namely those of electrical supervisor, motor mechanic, radio mechanic, general wood work, and high school technical—each of two years' duration. The name of the institute was changed in 1961 from Government Polytechnic to Government Industrial and Technical Institute. It is now under the control of the department of training and employment, U.P., Lucknow. After successful completion of training, the trainee is awarded a national trade certificate.

A stipend of Rs 25 per month is also given to 33 per cent of the trainees of whom at least 12.50 per cent belong to the Scheduled Castes and 5 per cent to the Scheduled Tribes.

The Industrial Training Institute for women, Dehra Dun, was established in 1948. This is a training centre where training is imparted in cutting and tailoring, calico printing, embroidery, knitting with machine, hand-weaving and stenography. The duration of the course is one year. The number of trainees in 1970 was 254. One-third of the total number of trainees are given a monthly stipend of Rs 25.

The Government Industrial and Technological Institute, Dehra Dun, was established in 1952. It imparts training in electric, radio mechanic, motor mechanic and carpentry trades, the courses of the former two being of two years' duration and of the latter two of one year. One-third of the total number of students are given stipends of Rs 25 per month. The number of trainees in 1970 was 120. The high school technical scheme, as prescribed by the board of high school and intermediate education, U.P., has also been started in the institution.

Training Centre—There is a cluster of training centres at Vikas-nagar, under the industries department, where training is imparted in fitter-cum-mechanic and electrician trades. These institutions were started in 1960, and till now 151 persons have been trained.

The Forest Research Institute and Colleges, Dehra Dun, represent some of the foremost centres of forestry education and research in the world.

The new forest estate in which the Forest Research Institute is located is about 445 hectares in area. At present a demonstration forest, an extensive arboretum and a botanical garden occupy more than half of the estate. The main building, an imposing two storeyed structure facing south was inaugurated in 1929. As early as 1855 the Government of India, recognising the need for scientific management to ensure a steady supply of timbers, issued a memorandum for the setting up of a forest organisation. A forest school was started at Dehra Dun in 1878 for the training of rangers for the forest subordinate services as the Dun valley between the Siwaliks in the south and the Himalayas in the north provides an ideal location and both deciduous and coniferous forests are available in the proximity. In the first few years only practical training was given to forest probationers and apprentices. In 1881, the first theoretical course was given to a batch of 12 regular students. For some years these theoretical courses were attended by a small number of officers of the superior service, who did not have the advantage of a professional training in Europe. In 1884, the institute was taken over by the Central Government and named the Imperial Forest School. In 1906, a research department was added to this school with five research branches in silviculture, zoology, botany, chemistry and economics and it was re-christened as the imperial Forest Research Institute and Colleges.

On the research side, the institute underwent considerable expansion as a result of re-organisation. In 1920-21, the forest economy branch was re-organised and sections of wood technology, minor forest products, paper and pulp, mechanical engineering, wood working, wood seasoning, timber testing and wood preservation were formed. In 1947, a statistical branch and a publicity and liaison branch were also established. To provide full scope for development in each field of investigation, the utilization branch was further split into a number of independent branches.

With several years of research work to its credit, the institute was recognised in 1951 by the food agriculture organisation of the United Nations as a centre for research and training in forestry for the south-east Asia region. The timber engineering branch was opened in 1958, and in 1957 a logging branch was constituted.

The institute offers facilities for post-graduate, post-M.Sc., and post-doctorate research and technical training facilities for a limited number of apprentices in composite wood, wood anatomy, wood preservation, timber mechanics, wood working, wood seasoning, cellulose and paper, timber engineering, chemistry of forest products, silvicultural research and statistical training for officers, refresher course for forest officers, pulp and paper technology and seasoning and preservation of timbers.

The institute has two wings—forestry education and research in forestry biological sciences and forest products utilization.

The training period for the Indian forest service and State forest service courses is two years. The rangers' course in forestry is of two years duration. In 1970, the number of officers of the Indian forest service was 29 including 14 foreigners, and those of the State forest service 26 including 8 foreigners, and for the rangers' course in the northern forest rangers' college at Dehra Dun 39. In the special refresher's course, which was started in 1965, for training rangers promoted to gazetted rank with a view to maintaining professional competency, the intake is 20 trainees per course.

This institution, devoted to the advancement of Indian forest management and forest products, has done work on the introduction of new forest species, fast growing species and improved silvicultural methods for high yield of timber, and also on the cultivation of herbs and grasses which yield essential oils and alkaloids for use in the country and for export. With improved methods, it has succeeded in raising the yield of resin by about 75 per cent. In order to achieve economic extraction of timber from the forest, improved mechanised logging methods are being developed so that the wastage of timber is reduced to the minimum.

In the field of timber utilisation work has been done on the use of non-conventional, short-length, small dimensioned timbers for making big buildings and trusses. Research is in progress for the improvement of timber by converting it into ply-wood or compressed wood or making

ply-wood. Research work is also in progress for finding out new raw materials for making paper and newsprint. In order to save timber from deterioration and in order to protect the forest trees, the harmful insects and fungi are being studied to find out control measures.

The institute has a well equipped central library which has a rare collection of technical literature on forestry and allied subjects. In addition to some 60,000 volumes it also subscribes to about 500 journals many of which are received from all parts of the world.

The Rashtriya Indian Military College, Dehra Dun, was opened in 1922, to provide necessary training for Indians, to fit them to enter any military college and was then named as the Prince of Wales Royal Indian Military College.

The college is a residential institution and also provides for career and public school education. Besides the commandant / principal, and the administrative officers, the academic staff consists of 15 teachers. There are five classes : I to V ; class I roughly corresponding to class VII and class V to class XI of a higher secondary school. No class exceeds 24 boys, which ensures careful and individual attention. The college conducts a diploma examination which is recognised as equivalent to the Matriculation Examination of various Indian Universities/Boards. It also prepares cadets for the Indian School Certificate Examination.

The Co-operative Training College, Dehra Dun, was founded in 1965. It gives training in the general Basic courses, the core co-operative marketing courses and the special course for senior farming inspectors. The staff in the college in 1971 was 12.

The Lal Bahadur Shastri National Academy of Administration, Mussoorie, is a premier administrative training institution in the country. It was set up in 1959, incorporating the Indian Administrative Service Staff College, Simla. The academy is set up by the Government of India to make the training of all-India and Central services' officers as cohesive and co-ordinated as is necessary in the vastly increased developmental activities of a welfare state. It provides fundamental training to the direct recruits of superior civil services recruited on the results of competitive examinations conducted by the Union Public Service Commission. During the course of fundamental training the probationers are provided with a basic appreciation of the administrative, constitutional, legal and socio-economic framework within which they will have to function. The training also helps in bringing about an esprit decorps among the civil services of the country, and an appreciation of the importance of the different services in their respective fields for national development, as also the mutual interdependence of the various services essential for effective functioning.

Besides the foundational training, the Indian Administrative Service probationers are also provided professional training in the academy. Their course of training covers all disciplines relating to the role and tasks of these officers in the field as well as in the secretariat. The academy also conducts in service training programmes for officers of

all important services. The foundational course for the central services probationers is of about 4 months, duration and the period of training for the Indian Administrative Service Officers is one year. The number of trainees every year is about 300 and the number of teaching staff 30.

EDUCATION FOR PHYSICALLY HANDICAPPED

The national centre for the blind, Dehra Dun, constituted in 1967, under the department of social welfare, Government of India, provides certain educational and other facilities for the blind, through the eight units working under it, six of which had been functioning in the district prior to that date.

The training centre for the adult blind (men's and women's sections) was established in 1950. There are seats for 150 male and 85 female trainees in various handicrafts and trades in it and they are provided free boarding and lodging, clothes and medical facilities besides a pocket allowance of Rs 8 per month. The period of training is 2 to 3 years, depending on the trades taught.

The model school for blind children provides education from the elementary stage to the high school standard. Since 1966, the results of the high school examination of this school have been 100 per cent. In 1970-71, there were 66 boys and girls on its rolls.

The school for partially sighted children established in 1969, is the only one of its kind in the country. It imparts free education, and is a co-educational institution. In 1970-71, it had 10 students on its roll. Efforts are being made to provide special facilities like large print books and low-vision optical aids to them.

In 1971, a centre in orientation and mobility for teachers was introduced with the collaboration of the American foundation for overseas blind and with Kuala Lumpur (Malaysia). A group of teacher-trainees from different institutions of this country have been receiving training in this course.

There are also the Central Braille press (established in 1951), the sheltered workshop for the blind (started in 1954), the National library for the blind (set up in 1963), and the workshop for the manufacture of special appliances for the blind (established in 1957), functioning in the district catering to the needs of the blind.

ORIENTAL EDUCATION

Sanskrit

In early times education in Sanskrit in the major part of the district was imparted in *pathshalas* (schools), *gurukuls* and temples. The Statement III given at the end of the chapter shows the names, location and some other particulars of the present Sanskrit schools in the district.

PHYSICAL EDUCATION

Physical education is now given to boys and girls in almost all types of institutions. Physical training in accordance with the national defence scheme and training under the National Cadet Corps, Prantiya Sikshak Dal and Auxiliary Cadet Corps is also given in some institutions. Students are also trained in social and cultural activities at the time of the annual rallies, when a wide variety of competitive games, sports and cultural events are held.

FINE ARTS AND MUSIC

Art and Architecture

The district has many ancient monuments giving an idea about the nature of early art, while excavations at the site of and near the Lakhamandal temple have historic significance. There are temples of Siva, the Pandavas and Parasram and some artistically carved stones representing Hindu deities and a number of gods and goddesses. The figures of Arjuna and Bhima are very well executed in stone.

Another monument of architectural significance is the rock inscription at Kalsi. The edicts are engraved on a huge boulder of quartz, 3.0 metres long, 3.0 metres high and 2.4 metres thick at bottom. At first sight the inscription appears as if it was imperfect in many places but this is due to the engraver having purposely left all the cracked and rougher portions uninscribed. Towards the bottom, beginning with the tenth edict, the letters increase in size until they become thrice as large as those of the upper part. As the prepared surface was too small for the whole record it was completed on the left side of the rock. On the right side is traced in outline an elephant, labelled *Gajatama* (superlative elephant), referring probably to Buddha. Many sculptured square red stones as well as several pieces of octagonal pillars and half pillars, which are hollowed out on the shorter faces like the pillars of Buddhist railings, lying on the site of the rock, indicate the existence of structures in the neighbourhood in about 500 B.C. as the place was situated near the ancient and prosperous city of Shrughna. The rock is known among the people by the name of *Chhatra sila* or canopy stone, which indicates that the inscribed rock was previously covered over by a sort of canopy or an umbrella. There is also a large carved stone 213 centimetres long, 45 centimetres broad and 30 centimetres in height, which seems to be the entrance step to some kind of open porch in front of the inscription stone. The writing on the edict is in a more perfect condition than in other edicts.

Another building of architectural significance is the Gurudwara of Ram Rai, constructed in 1756. The central building is a handsome structure designed in the style of the tomb of Jahangir. Four smaller monuments have been erected at the corners, in memory of his four wives. The material is brick, plastered over and painted in mosaic.

Carved house doors, beams and posts, and carefully painted walls indicate the artistic taste of the Jaunsaris.

Folk-Songs and Dances

In Jaunsar Bawar, where the terrain is hilly and communications difficult, traditional folk-songs and dances have been preserved intact over the centuries. Music and dance are an integral part of the everyday life of Jaunsaris. Their festivals are in reality occasions for merry-making. Practically, every villager, whether male or female, takes part in the dances. The famous tribal folk-songs are *tand ka geet*, *nach ka geet*, *jangubaju*, *haryali*, etc., of which the most pleasing is the *jangubaju*. The common musical instruments are the *ransingha*, drum and *nagara*. At the festival of Bissoo, which is celebrated in the month of April, folk-songs, which generally narrate famous love-lore, are sung, and those sung in accompaniment to the Dipawali dance particularly depict the tender feelings of love of the common man of this region. Dances and songs are also a special feature of the celebration of the Magh festival, one of the four most important, when evening programmes begin with '*lamads*'. The *badhais* have specialised in these types of long songs, which are a kind of competition of wit and muse, and anybody may reply to a particular '*lamad*' sung by another. One by one, people come forward and sing these songs which describe some old legends or narrate brave deeds of old fights. The '*lamad*' with which the evening functions starts is called '*seva ka lamad*' or '*lamad*' of service. These songs also serve as an interval between the dances for the serving of liquor. Singing '*lamads*' is the right and privilege of elderly people.

Every evening there are dance performances in the village *angan* (courtyard). Dances are either followed or preceded by a *mendawa* (small fair). All persons except the Koltas participate in these celebrations. Dances are the main attraction for village young men and young women, and all through the year, the Magh festival is eagerly awaited. For the dance, one person offers himself for the performance, while others sing or play on the musical instruments. Almost all the dances are of the same type, one person moving round and round, with hands spread open and the fingers making slow gestures. Gradually, the speed and tempo of the dance increases. The general pattern of movement remains the same, though the speed may vary from person to person.

The main feature of the social and religious festivals of Jaunsar Bawar is the Pandava dance, in which most of the people of these villages join. Persons who act as the five Pandavas are held in high esteem and Bajgis, the musicians, play an important part on such occasions. Bhima as the hero of the festival, has to perform prodigies of dance on such occasions. The man, who impersonates him is selected with great care, and he has to prepare himself for the part for days beforehand. During the dance, his strength, endurance and agility are severely tested. It is believed by the people here that on such occasions the spirit of Bhima takes possession of the dancer, who after the festival is allowed to have the privilege of wearing a silver bracelet as a mark of distinction. Folk-dancers from Jaunsar Bawar won the first prize in the State and second in the country's biggest festival of Republic Day at Delhi in 1958.

In Dehra Dun tahsil cultural societies and institutions popularise and propagate Indian music and dance. The people of different regions who have settled in Dehra Dun have brought with them their traditional songs and dances. Folk-songs are sung at different times of the year—Kaharwa at Dipawali, Phag during Holi, Alha, Barahmasi and Kajri during the rainy season. On ceremonial occasions such as births, marriages, etc., traditional songs are also sung. The Garhwalis who came to this region and have settled there since a very long time have brought with them their traditional folk-songs and dances. The more well known of the Garhwali folk-songs are the *panwaras*, *khudar*, *bajuband* and *mangal*. The dances are either religious like the *tandva* and *lasya*, or popular like the Pandava dance performed after the harvest, and the *sarav* dance, in which two persons stand face to face and dance with rhythmic steps while beating their drums. The Punjabis who came to this district in large numbers after the partition in 1947 brought with them their traditional folk-songs—*tappa*, *hori* and the *bhangra* style of dance.



STATEMENT I
General Education

Reference Page No. 274

Year	Junior Basic				Senior Basic				Higher Secondary			
	Schools		Students		Schools		Students		Schools		Students	
			Boys	Girls			Boys	Girls			Boys	Girls
1	2	3	4	5	6	7	8	9	10			
1961-62	378	25,900	17,603	38	8,100	3,702	20	6,509	4,518			
1962-63	471	27,530	18,073	39	9,064	4,521	32	7,004	3,231			
1963-64	502	30,701	20,571	41	9,067	5,092	33	7,929	3,495			
1964-65	512	33,190	23,603	40	9,671	5,761	34	8,239	5,613			
1965-66	530	33,200	23,830	67	8,380	4,915	36	12,503	4,900			
1966-67	541	33,857	23,965	75	6,698	3,796	36	18,247	5,846			
1967-68	541	35,119	27,212	80	6,832	0,420	39	18,761	5,451			
1968-69	541	35,305	23,093	80	6,803	4,389	40	18,216	12,330			
1969-70	542	35,674	16,923	80	8,209	4,588	40	19,759	13,910			
1970-71	548	36,037	23,284	84	8,553	5,316	41	19,946	14,482			

STATEMENT II
Higher Secondary Institutions

Reference Page No. 276

Institution and location	Year of establish- ment	Founder	Year of upgrading	Number				Income in rupees (1970-71)	Expendi- ture in rupees (1970-71)
				of teachers (1970-71)	of pupils (1970-71)	5	6		
1	2	3	4	5	6	7	8		
U.C.N.I. Boys' Intermediate College, Dehra Dun	1854	Rev. J.S. Wood- side	Junior high school 1940, high school 1941, and intermediate 1951.	40	1,393	1,82,548	1,91,735		
D.A.V. Intermediate College, Dehra Dun	1904	Brijendra Swaroop	High school 1911 and intermediate 1922	90	3,250	5,08,210	5,57,395		
Hindu National Intermediate College, Dehra Dun	1920	Kedar Nath and others	High school 1944 and intermediate 1947	37	886	1,41,303	1,64,806		
Sadhu Ram Intermediate College, Dehra Dun	1925	Sadhu Ram	Junior high school 1936, high school 1938 and intermediate 1955	31	1,113	1,52,312	1,54,836		
Gorkha Intermediate College, Dehra Dun	1925	Not known	High school 1948 and intermediate 1964	48	1,645	1,56,617	1,27,945		
Ghananand Government Intermediate College, Mussoorie	1928	Radha Ballabh Khanduri	High school 1929 and intermediate 1944	28	522	1,84,616	1,70,616		
Ashram Vedic Intermediate College, Dehra Dun	1931	Not known	Junior high school 1934, high school 1946 and intermediate 1960	38	828	1,54,935	2,74,967		
S.G.N.P. Boys' Intermediate College, Dehra Dun	1936	Shri S.G.N.P. School Society	Junior high school 1946, high school 1948 and intermediate 1952	34	575	1,52,781	1,65,041		

[Contd.]

1	2	3	4	5	6	7	8
R.N. Bhargava Intermediate College, Mussoorie	1943	Rama Dev and others	High school 1948 and intermediate 1956	22	480	1,19,350	97,412
Bharat Mandir Intermediate College, Rishikesh	1943	Not known	High school 1947 and intermediate 1951	43	1,108	1,23,911	1,37,942
Shri Lakshman Vidyalya Intermediate College, Dehra Dun	1947	Mahant Indrishi Charan Das	High school 1947 and intermediate 1951	27	749	1,02,480	1,21,896
D.A.V. Intermediate College, Prem Nagar, Dehra Dun	1947	Brijendra Swaroop	High school 1952 and intermediate 1958	32	1,105	1,36,616	1,46,190
Arya Intermediate College, Dehra Dun	1948	Pannalal	High school 1951 and intermediate 1965	27	779	97,562	1,03,730
Gandhi Intermediate College, Dehra Dun	1948	Gandhi Education Society	High school 1949 and intermediate 1963	33	1,179	1,22,711	1,39,975
S.G.R.R. Intermediate College, Dehra Dun	1953	Mahant Indrishi Charan Das	High school 1954 and intermediate 1966	13	536	48,046	54,921
S.D. Bann Intermediate College, Dehra Dun	1954	Not known	High school 1954 and intermediate 1966	18	516	61,342	68,471
S.G.R.R. Intermediate College, Sahaspur, Dehra Dun	1954	Mahant Indrishi Charan Das	High school 1958 and intermediate 1966	14	315	33,165	58,265
Public Intermediate College, Doiwala, Dehra Dun	1955	Cane Development Society	High school 1958 and intermediate 1966	37	611	90,708	1,51,762
S.G.R.R. Intermediate College Mehrugram, Dehra Dun	1960	Mahant Indrishi Charan Das	High school 1954 and intermediate 1966	37	1,331	1,25,612	1,46,810
Higher Secondary School, Chakrata	1940	District Board, Dehra Dun	Junior high school 1943 and high school 1953	11	235	25,786	55,156

Higher Secondary School, Raipur, Dehra Dun	1950	Government of India	High school 1966	24	862	79,296	50,980
Shahan Shahie Higher Secondary School, Raipur, Dehra Dun	1952	Shahan Shahie Maharaja	High school 1966	24	862	79,296	80,980
Jaunsar Bawar Higher Secondary School, Sahiya	1954	Dharam Singh Sayana	High school 1965	10	181	53,169	53,515
U.C.N.I. Girls' Intermediate College, Dehra Dun	1859	Rev. J.S. Wood- side	Middle school 1870, high school 1890, and inter- mediate college 1953	13	461	71,513	82,739
Mahadevi Kanya Pathshala Intermediate College, Dehra Dun	1902	Mahadevi	High school 1914 and intermediate 1952	73	1,963	2,78,511	3,25,717
Mahaveer Jain Kanya Pathshala Interme- diate College, Dehra Dun	1927	Local Jain Samaj	Junior high school 1955, high school 1959 and intermediate 1969	19	582	45,041	53,249
Sanatan Dharma Girls' intermediate College, Mussoorie	1928	Hiralal	Junior high school 1936, high school 1950 and intermediate 1952	19	527	69,357	64,009
Narislip, Mandir Intermediate College, Dehra Dun	1930	Dhanwanti Devi	Junior high school 1940, high school 1947 and intermediate 1952	56	1,760	2,26,498	2,33,916
Mussoorie Girls' Intermediate College, Mussoorie	1941	Not known	High school 1946 and intermediate 1953	11	259	51,742	65,713
Ram Pyari Girls' Intermediate College, Dehra Dun	1944	Anandi Prasad Asthana	Junior high school 1952, high school 1955 and intermediate 1965	21	516	57,863	66,065
S.G.N.P. Girls' Intermediate College, Dehra Dun	1949	Guru Nanak Society	Intermediate college 1963	53	1,505	1,16,535	1,24,841

[Contd.]

1	2	3	4	5	6	7	8
Government Girls' Intermediate College, Dehra Dun	1952	State Govern- ment	Intermediate college 1962	38	825	56,133	1,70,000
Government Girls' Intermediate College, Rishikesh	1957	State Govern- ment	High school 1963 and intermediate 1967	30	455	28,106	1,86,129
Hoshiyar Singh Jain Girls' Intermediate College, Vikas Nagar, Dehra Dun	1960	Hoshiyar Singh Jain	Junior high school 1961 and high school 1969	20	755	15,518	15,967
S.G.R.R. Girls' Intermediate College, Dehra Dun	1964	Mahant Indrishi Charan Das	High school 1965 and intermediate 1969	24	750	65,452	1,15,525
S.G.N.P. Girls' High School, Prem Nagar, Dehra Dun	1948	Amar Singh	Junior high school 1953 and high school 1966	20	688	47,679	50,580
Girls' High School, Dehra Dun	1956	Not known	Middle school 1958 and high school 1968-69	13	307	19,166	39,266

STATEMENT III
Sanskrit Schools

Reference Page No. 284

Name and location	Year of establi- ment	Founder	No. of students (1970-71)	No. of teachers (1970-71)	Highest examina- tion
I	2	3	4	5	6
Veda Sanskrit Vidyalaya, Rishikesh	1901	Bhim Dutt Ji Vedpathi	22	4	Madhyama
Punjab Sindh Kshettra Sanskrit Vidyalaya Sadhu Mahavidyalaya, Rishikesh	1909	Punjab Sindh Kshettra	45	4	Shastri
Sri Baba Kali Kamli Sanskrit Vidyalaya, Rishikesh	1917	Sri Baba Ramnath Kali Kamli Wale	64	5	Acharya
Bharat Sanskrit Vidyalaya, Rishikesh	1921	Sri Bharat Mandir	10	2	Madhyama
Sri Samveda Sanskrit Vidyalaya, Rishikesh	1924	Balak Ram	16	3	Madhyama
Lakshman Sanskrit Vidyalaya, Dehra Dun	1931	Mahant Lakshman Das	44	3	Acharya
Nepali Sanskrit Vidyalaya, Rishikesh	1945	Mahant Chetram	16	3	Madhyama
Shivnath Sanskrit Vidyalaya, Dehra Dun	1945	Mukhi Devi	18	2	Acharya
Sri Sanatan Dharm Sanskrit Vidyalaya, Mussoorie	1951	Sanatan Dharm Sabha, Mussoorie	22	5	Acharya
Sri Munishwar Devanga Sanskrit Vidyalaya, Rishikesh	1952	Swami Luxmanacharya	59	3	Acharya
Sri Akhand Vedant Sanskrit Vidyalaya, Rishikesh	1959	Swami Akhandanand Ji	25	4	Madhyama
Sri Bhajanshrama Sanskrit Vidyalaya, Rishikesh	1960	Kedar Nath	18	3	Madhyama
Sri Jai Ram Sanskrit Mahavidyalaya, Rishikesh	1964	Sri Devendra	26	6	Madhyama

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

MEDICAL FACILITIES IN EARLY TIMES

The only indigenous system of medicine obtaining till the fourteenth or fifteenth century was the Ayurveda (science of life and longevity). Tahsil Chakrata was rich in medicinal herbs. The early physicians, known as *vaids* (or *bhishaks*), were also familiar with the art of surgery. They generally used herbal medicines, took no fees from patients and practised the art of healing as a religious duty, the rich often taking care to help the *vaids* with requisite funds through charitable contributions. In mediaeval times the Unani system of medicine was introduced. The physicians of this system were called hakims, and they were also patronised by the muslim rulers and rich persons.

In the eighteenth century the Ayurvedic and Unani systems lost ground. The English brought with them the allopathic system of medicine, specially for their civil and military officers. The system gained ground gradually in the nineteenth century and became popular. As time passed, dispensaries and hospitals in the new system, were opened to the people at large also. The first dispensaries were established at Dehra Dun, Mussoorie, Rajpur, Chakrata and Markham grant, each under the charge of an assistant surgeon or sub-assistant surgeon, controlled by the civil surgeon. They were maintained by the then district board.

In 1872 Mrs Ross, wife of the superintendent of Dehra Dun, appealed to the residents of the district for the establishment of an asylum for lepers. Major MacLaren, the civil surgeon, was made custodian of the funds collected, and the MacLaren Leper Asylum was established in 1876.

The other hospitals established in the last century are the Doon Hospital, Dehra Dun, Women's Hospital, Dehra Dun, Police Hospitals at Dehra Dun and Mussoorie, Jail Hospital, Dehra Dun, and the Women's Hospital, Mussoorie. In the twentieth century the first hospital to be established was the Coronation Hospital, at Dehra Dun. Thereafter, the Civil Hospital, Mussoorie, St. Mary's Hospital, Mussoorie, G.D. Hospital, Chakrata, G.D. Hospital, Rishikesh, Mission Hospital, Dehra Dun, and the three infectious diseases hospitals at Dehra Dun, Rishikesh and Mussoorie respectively were established, in the first three decades of the present century. Another important institution, the X-Ray institute, was sanctioned by the Secretary of State in June 1905. Its first seminar for the instruction of medical officers and subordinates was held in May 1906, and since then two classes have been held annually during the cold weather. Training is imparted here to medical officers drawn both from the army and the civil medical services.

The Nehru Eye Hospital, Mussoorie, and the Gandhi Centenary Jaycee Hospital, Dehra Dun, were established in 1969 and 1970 respectively. Another notable feature was the taking over of the Doon Hospital, Dehra Dun, Women's Hospital, Dehra Dun, Civil Hospital Mussoorie, St. Mary's Hospital, Mussoorie, MacLaren Leper Asylum, Dehra Dun, G.D. Hospital, Dehra Dun and the Coronation Hospital, Dehra Dun, after 1944 by the U.P. Government.

VITAL STATISTICS

A perusal of the vital statistics of the district indicates that in normal years the birth-rate is higher than the death-rate. It is also clear that the birth-rate has been higher in the twentieth century as compared to that in the nineteenth century, while the maximum of the death-rate in the nineteenth century has been higher than the maximum of the death rate in the twentieth century. There were, it is apprehended, large-scale omissions in the registration of births and deaths and, therefore the rates are only indicative of general trends.

The maximum birth-rate in the last decade of the nineteenth century was 27.89 per thousand of population in 1894 and the minimum was 18.32 in 1891. In the first decade of this century the maximum was 31.07 in 1909 and the minimum was 25.06 in 1908. In the next two decades the birth-rate decreased.

The minimum death-rate in the last decade of the nineteenth century was 20.31 in 1891, and the maximum was 43.35 in 1892. This unexpected increase is attributed to malaria fever. The maximum death-rate in the first decade of this century was 31.25 in 1908 and the minimum was 20.76 in 1904. In the next two decades the death-rate decreased.

The following statement gives the death-rates and birth-rates in the district from 1931 to 1967 :

Year	Birth-rate per 1,000 of the population	Death-rate per 1,000 of the population
1931	27.62	22.30
1941	28.29	21.10
1951	16.69	9.26
1961	14.05	5.05
1962	12.03	4.70
1963	11.07	3.75
1964	13.00	5.00
1966	18.78	3.91
1967	13.53	3.48

Infant Mortality

Mortality among children below one year in age was quite high until 1950, as many as 1,178 children dying in 1935 alone. More than 1,000 children died in each of the years—1931, 1932, 1934, 1938, 1940, 1941, 1942 and 1944. Even in 1950, as many as 752 children died. However, after 1950 there has been appreciable decrease in infant mortality and in 1956 the figure came down to 319, but it again increased to 536 in 1957. In the subsequent years infant mortality decreased and only 159 children died in 1967. The following statement gives the number of infant deaths from 1931 to 1967 :

Year	No. of infant deaths
1931	1,120
1941	1,107
1951	520
1961	343
1962	803
1963	325
1964	283
1966	215
1967	159



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DISEASES

Common Diseases

Formerly diseases that caused death were classified as fevers, bowel disorders, respiratory diseases and epidemics like cholera, smallpox, and plague. Epidemics have, however, been largely controlled in this century, though fevers still claim the largest number of deaths in the district.

Fever—The term fever has a wide connotation. It not only includes diseases such as malaria and typhoid, but also covers a number of other diseases of which fever is only a symptom. In the decade 1891-1900, more than 2,500 persons died each year from fever. The minimum figure for this period was 2,608 in 1891 while the maximum was 4,328 in 1896. In the opening decade of the twentieth century mortality from fever increased. About 3,000 persons died each year, the maximum figure for the period being 4,477 in 1908, and the minimum 2,645 in 1909. In the next decade fever claimed more lives, the maximum figure of mortality being 7,170 in 1918 and the minimum 2,888 in 1912.

In the decade 1931-40, as many as 4,182 persons died in 1935, while the minimum figure was 2,477 in 1934. In the next decade although there was some improvement, more than 2,000 persons died of fever each year. The largest number of persons—3,353, died in 1941, while minimum figure for this period was 1,641 in 1949. In the period 1951-60, the maximum figure of mortality was 1,581 in 1952. Thereafter it decreased and the minimum figure for the decade was 554 in 1958. Mortality from fever began to decrease in the sixties. It was 666 in 1965 and slowly dropped to 367 in 1966 and 220 in 1967. The decrease is also due to more of the deaths formerly attributed to fevers generally being now classified under more specific causes.

Respiratory Diseases—The average yearly mortality from respiratory diseases was 651 during 1941-1950 which comprised 14.7 per cent of the total number of deaths. In the decade 1951-60, the largest number of deaths due to respiratory diseases was caused in 1951, when 581 persons died. The minimum figure for this period was 300 in 1957. There was considerable improvement in the sixties, 367 persons died in 1966 and 220 in 1967.

Dysentery and Diarrhoea—These diseases occur in the form of bowel complaints. Their incidence is attributed generally to insanitary conditions and unsatisfactory arrangements for the supply of drinking water. With the introduction of sanitary measures, the incidence of these diseases has vastly decreased of late.

The number of deaths due to dysentery and diarrhoea was considerable in the decade 1891-1908. The maximum figure was reached in 1895, when 821 persons died of these diseases, the minimum figure for the period being 494 in 1898. In the opening decade of the twentieth century there was a significant decrease in the numbers of deaths due to these diseases, the maximum being 467 in 1902, and the minimum 184 in 1904.

In the decade 1931-40 the largest number of persons, 361, died in 1938, while the minimum figure was 104 in 1935. In the next decade mortality from these diseases increased, the maximum figure being 420 in 1948. However, the minimum figure was 179 for each of the years 1946 and 1950. In the decade 1951-60, there was an increase in the incidence of these diseases, the maximum figure being 796 in 1955 while the minimum being 166 in 1954. In the sixties the increase in mortality due to these diseases showed an unexpected rise and as many as 1,052 persons died in 1961. The corresponding figures for 1962, 1963 and 1964 were 818, 696 and 785 respectively. But there was a sharp decline after 1965. In 1966, the figure was only 54 while in 1967 it was 64.

Other Diseases

Leprosy, tuberculosis, venereal diseases and goitre are the other physical afflictions prevalent in the district. In addition there are insane persons, blind persons and deaf-mutes.

Leprosy apparently finds hill conditions congenial for it is common also in Garhwal and Almora. The district contained in all 214 lepers in 1911, while there were about 1,610 lepers in 1970. The MacLaren Leper Asylum about whose establishment mention has been made earlier started in 1875, when a ward in the Doon Hospital was made over for this purpose. In its earlier years the asylum was known as the Dehra Dun and Mussoorie Leper Asylum and Poor House. In 1893 it received the name of MacLaren Leper Asylum in commemoration of the services of its founder. Later on the hospital was housed in a separate building in Chandra Nagar. In 1906, the Leper Act II of 1898 was extended to Dehra Dun district, and the asylum was declared to be a place to which lepers could be sent for detention. The provisions of the new Act were utilized for the removal of the leper colony from Rishikesh as it was considered a public nuisance. The asylum (hospital) had not, in view of its original character, been furnished with high walls nor was there any guard to prevent lepers from escaping. Many of the deportees therefore left the asylum. A leprosy control unit was established in the hospital in 1954, and later seven sub-units were opened in the district. Each sub-unit is manned by one medical assistant and other staff. The hospital was taken over by the U.P. Government in 1962. It has been estimated that about 0.8 per cent of the population of the hilly region of the district has been suffering from leprosy.

Venereal diseases are present in the hilly tracts of the district, particularly in Jaunsar Bawar and, according to a random sample survey undertaken in 1959-60 in Jaunsar Bawar, about 30 to 40 per cent of the population suffered from these diseases. A clinic has been established in the Doon Hospital, Dehra Dun where 396 patients were treated in 1970. Mobile medical units are also sent from Dehra Dun to treat the patients in Jaunsar Bawar.

The government also established a T.B. clinic at Dehra Dun in 1963 and another at Rishikesh in 1966. Each clinic is manned by one medical officer and six others. As many as 1,071 patients were given treatment in 1970.

Endemic goitre which is associated with various other diseases is prevalent in the Jaunsar Bawar region of Chakrata tahsil. A survey was conducted in 1952 which indicated that 21 per cent of the residents of Jaunsar Bawar suffered from goitre.

Efforts made by the government to improve environmental conditions and health of the people have helped to decrease the mortality from other diseases. During the decade 1941-50, average annual mortality from other diseases in the district was 1,006, which comprised 22.8 per cent of the total number of deaths. As many as 880 persons died of other diseases in 1966 and 967 died in 1967.

Epidemics

Cholera used to take a heavy toll of human life in the nineteenth century, as many as 3,049 persons dying of this disease in 1892 alone. But the incidence of the disease has considerably decreased in the

twentieth century and in the first decade the maximum mortality due to cholera was only 807 in 1903, while only five persons died in 1909 and none in 1905. In the next decade the maximum figure was 588 deaths in 1916, while only 27 persons died in 1917 and none in 1912. According to the registrations made, smallpox was not in a virulent form in the last decade of the nineteenth century. However 34 persons died of smallpox in 1897.

In the first decade of this century the maximum figure of mortality from this disease was 39 in 1906, while the minimum was only one, in 1909. In the next decade the maximum figure was 33 in 1914 and the minimum only 1, in 1915.

The incidence of plague was marked in the second decade of the twentieth century. In the first decade the maximum figure of mortality from plague was 55 in 1907, while there were no deaths in 1901, 1903, 1909 and 1910. Plague erupted in a virulent form in the years 1904 and 1912 when 158 and 126 persons died of the same. However, only one person died in each of the years 1914 and 1918, and none in other years.

W.H.O. plague project was stationed at Dehra Dun from 1954 to 1960 for investigation of plague reservoir of the rodents in Dehra Dun district and the neighbouring areas.

The following statement gives the number of deaths from cholera, plague and smallpox in the period 1931-1967 :

Year	Cholera	Plague	Smallpox
1931	22	2	6
1941	24	1	15
1951	4	—	4
1961	18	—	25
1962	1	—	10
1963	3	—	9
1964	—	—	9
1966	10	—	15
1967	1	—	34

Medical and Public Health Organisation

The medical and public health departments of the State were amalgamated in 1948, and placed under the control of a director exer-

cising supervision over the allopathic, Ayurvedic and Unani institutions and services. In July 1961, however, a separate directorate was established at Lucknow for the development and effective supervision of Ayurvedic and Unani dispensaries, but their local administration continued to be in the charge of the district medical officer of health now styled the deputy chief medical officer (health).

The chief medical officer is the head of the entire medical set-up in the district. He is in overall charge of the State hospitals and allopathic dispensaries. He is assisted by three deputy chief medical officers one each for medical, public health and family planning.

Efforts have been made to improve the public health services in the Five-year Plans. The following statement gives details of public health activities undertaken in the district :

Scheme	IInd Plan	IIIrd Plan
No. of medical chests distributed	19	5
Length of sanitary drains constructed	2 km.	7 km.
No. of sanitary latrines constructed	61	978
No. of soakage pits constructed	806	148

Hospitals

There are 14 State hospitals and four clinics in the district. The following statement gives relevant data about the staff, numbers of patients treated and numbers of beds available in these hospitals and clinics in 1970 :

Hospital/Clinic	Staff		No. of beds	No. of patients treated	
	No. of doctors	Others		Indoor	Outdoor
1	2	3	4	5	6
Hospitals					
Doon Hospital, Dehra Dun*	16	119	189	5,757	1,07,247
Women's Hospital, Dehra Dun*	8	40	92	5,679	21,424
Coronation Hospital, Dehra Dun*	1	25	16	340	Nil
MacLaren Leper Asylum, Dehra Dun	1	18	88	182	856
Jail Hospital, Dehra Dun	1	8	8	300	2,658

[Continued]

1	2	3	4	5	6
Police Hospital, Dehra Dun	1	9	15	240	5,068
St. Mary's Hospital Mussoorie*	2	25	45	585	29,507
Civil Hospital, Mussoorie*	1	8	9	114	4,247
Police Hospital, Mussoorie	Nil	1	6	85	1,356
G.D. Hospital, Rishikesh*	2	14	21	638	32,075
Women's Hospital, Rishikesh*	1	5	6	847	6,769
G.D. Hospital, Chakrata*	2	13	16	239	6,443
Yamuna Construction Hospital, Dak Pathar	2	16	16	316	5,063
Town's Project Hospital, Koti	1	2	4	130	1,016
Clinics					
T.B. Clinic, Dehra Dun	1	16	Nil	Nil	849
T.B. Clinic, Rishikesh	1	6	Nil	Nil	222
V.D. Clinic, Dehra Dun	1	3	Nil	Nil	396
Leprosy Unit, Dehra Dun	1	11	30	572	Nil

*Each of the hospitals is equipped with laboratories, operation theatres and X-ray plants

Anti-rabies treatment is available in the Doon Hospital, Dehra Dun and the Civil Hospital, Mussoorie.

Four hospitals are maintained by the municipal boards, one each at Dehra Dun and Rishikesh, and two at Mussoorie. The following statement gives relevant data about the staff, numbers of patients treated, and numbers of beds available in these hospitals in 1970 :

Name	Staff		No. of beds	No. of patients treated	
	No. of doctors	Others		Indoor	Outdoor
Infectious Diseases Hospital, Dehra Dun	1	8	28	42	Nil
Infectious Diseases Hospital, Rishikesh	1	4	20	9	4,062
Infectious Diseases Hospital, Mussoorie	1	4	20	Nil	8
Women's Hospital, Mussoorie	1	5	10	228	2,319

A very large number of patients, running into several thousands, are also treated in a couple of departmental hospitals run at Dehra Dun and Mohkampur.

Private organisations maintain four hospitals. The relevant information pertaining to 1970, about each of them is given in the following statement :

Name	Staff		No. of beds	No. of patients treated	
	No. of doctors	Others		Indoor	Outdoor
Community Landaur Hospital, Mussoorie	1	4	81	459	1,890
Mission Hospital, Herbertpur	1	6	120	687	2,481
Gandhi Centenary Eye Hospital, Dehra Dun	1	7	85	575	15,020
Nehru Eye Hospital, Mussoorie	1	4	86	855	15,556

Dispensaries

Allopathic—The following statement gives details about the staff and beds and the number of patients treated at the State allopathic dispensaries in the district in the year 1970 :

Dispensary	Staff		No. of beds	No. of patients treated	
	No. of doctors	Others		Indoor	Outdoor
R.G. dispensary, Premnagar, Dehra Dun	1	3	Nil	Nil	8,900
R.A. dispensary, Tium	1	4	4	211	6,185
R.A. dispensary, Thano	1	3	4	Nil	8,312
E.S.I. dispensary, Laxman Chowk, Dehra Dun	2	10	Nil	Nil	24,044
E.S.I. dispensary, Premnagar, Dehra Dun	1	10	Nil	Nil	10,698
Yamuna Project dispensary, Dhalipur	Nil	6	Nil	Nil	1,978
Yamuna Project dispensary, Dhakrani	Nil	6	Nil	Nil	1,428

The following statement gives details about the staff and beds and numbers of patients treated in 1970 at the allopathic dispensaries maintained by the local bodies, of those at Doiwala, Sahaspur and Sahiya being maintained by the Zila Parishad, and others by the municipal boards :

Name	Staff		No. of beds	No. of patients treated	
	No. of doctors	Others		Indoor	Outdoor
Patel dispensary, Doiwala	1	5	4	162	23,817
Subhas dispensary, Sahaspur	1	5	4	40	14,604
Sahiya dispensary, Sahiya	1	3	6	88	8,645
Municipal dispensary, Chukhuwala, Dehra Dun	1	2	Nil	Nil	14,152
Municipal dispensary, Rajpur, Dehra Dun	1	2	Nil	Nil	12,828
Municipal dispensary, Patelnagar, Dehra Dun	1	2	Nil	Nil	28,881
Municipal dispensary, Chakrata Road, Dehra Dun	1	2	Nil	Nil	21,810
School dispensary, Dehra Dun	Nil	1 compounder 3 others	Nil	Nil	3,208
Barlowganj dispensary, Mussoorie	1	3	Nil	Nil	1,890
Chandni Chowk, dispensary, Mussoorie	1	4	Nil	Nil	8,889

Ayurvedic

There are 11 dispensaries under the district medical officer of health and eight under the Zila Parishad. In addition, a number of Ayurvedic dispensaries and hospitals are run and managed by private institutions. Each dispensary under the district medical officer of health is manned by a medical officer (Chikitsa Adhikari) and three others. The following statement gives the number of patients treated in the dispensaries in 1970 :

Location of dispensary	No. of patients treated
1	2
Herbertpur	15,056
Motrwala	10,958
Bhauwala	9,475

Continued

1	2
Jhajra	8,346
Bhatta	6,672
Kuanoo	6,307
Nagthat	5,891
Gangru	4,866
Langha	4,610
Kunsain	3,820
Nagar	3,850

Four beds are available in the Bhatta dispensary, while in others only outdoor treatment is provided.

Each dispensary under the Zila Parishad is manned by one medical officer and one other staff. The following statement gives the number of patients treated in these dispensaries in 1970-71 :

Location of dispensary	No. of patients treated
Rani Pokhari	6,566
Gujrara	4,034
Berontha	2,660
Nahin	1,149

Primary Health Centres

There are three primary health centres in the district one each at Doiwala, Kalsi and Sahaspur, under the supervision of the district medical officer of health. Each centre has four beds and is manned by a doctor and five others. The following statement gives the location of each centre and the date on which it was opened :

Primary Health Centre	Date of opening	Development block in which situated
Doiwala	26-1-55	Doiwala
Kalsi	26-1-56	Kalsi
Sahaspur	1-4-58	Sahaspur

Maternity and Child Welfare

Efforts are being made since 1948 to reduce the high rates of female mortality during child-birth and the prenatal and post-natal periods and number of deaths of infants due to lack of proper medical attention, malnutrition and unhygienic conditions of living. By 1971, as many as four maternity and child welfare centres had been established, one in each primary health centre and one at Chakrata. In addition, a net-work of maternity sub-centres has been set-up. As many as 19 sub-centres are functioning in the district. Each maternity and child welfare centre has a health visitor, a midwife, and a *dai* in addition to the services of the staff of the primary health centre. Each sub-centre is manned by a midwife and a *dai*. The following statement gives the number of maternity cases attended to by the staff of these centres in 1968 and 1969 :

Year	No. of cases
1	2
1968	1,264
1969	1,485

Maternity centres are also operated by private institutions and by the municipal board, Dehra Dun. The one under the municipal board, Dehra Dun is manned by one doctor and 10 others. It attended to 5,135 cases in 1969.

There is provision for the training of *daïs*, midwives and nurses at Dehra Dun. An institution for this purpose was established on the Circular road in 1962, the period of training varying from 6 months to two years, and training being imparted only to nurses, midwives and *daïs* already in service. Although the institution can train 50 persons each year, none was successful in 1968 and 1969, and only 14 candidates succeeded in 1970.

Vaccination

The deputy chief medical officer (health) is in charge of the work of vaccination in the district. He is assisted by an assistant superintendent of vaccination posted at Dehra Dun, and a team of five vaccinators. In addition a mobile squad has been constituted comprising one medical assistant and two vaccinators. The squad visits slums, labour colonies, pilgrims, nomadic tribes, festivals and fairs.

The work of vaccination has been intensified since September, 1962, when the national smallpox eradication programme was launched in the district. Mothers are advised to have their children vaccinated

after they are two or three months old. The following statement gives the numbers of persons vaccinated during the period 1960-69 :

Year	Primary vaccinations Total number of persons vaccinated	No. of successful primary vacci- nations	No. of successful re-vaccinations
1960	36,755	8,718	24,927
1961	51,999	9,065	84,914
1962	38,427	5,697	19,724
1963	2,64,147	15,046	1,84,588
1964	34,573	5,122	11,216
1965	Not available	Not available	Not available
1966	1,69,867	15,360	57,988
1967	71,197	11,748	24,867
1968	92,591	12,868	42,386
1969	1,33,708	20,001	46,862

Eye Relief

The Nehru Eye Hospital, Mussoorie, and the Gandhi Centenary Eye Hospital, Dehra Dun look after patients suffering from eye diseases. As many as 16,411 patients were treated in the former and 15,595 in the latter in 1970. Each hospital is manned by one medical officer besides other staff.

Eye relief camps are held in the district by the Aligarh Eye Hospital. Cataract and entropion are found to be the most common diseases of the eye. In addition to treatment, operations and refractions of eyes are also performed in these camps.

Prevention of Food Adulteration

The district medical officer of health is the licensing authority for food establishments and drug stores in the district. The following statement would give an idea of the measures taken to prevent adulteration of edibles and drugs :

Year	No. of samples collected	No. of samples found adultera- ted	No. of cases that ended in conviction
1968	225	68	24
1969	225	42	41
1970	225	51	29

National Malaria Eradication Programme

The national malaria control programme was introduced in the district in 1954, and is carried on under the guidance of the district medical officer of health. The main function of the unit was to spray D.D.T. in 500 villages selected for the purpose. About 80 per cent of villages in 1954 and 98 per cent in 1955 were sprayed. A medical unit was established at Saharanpur in January, 1956, which covered Dehra Dun district in addition to Saharanpur district. Every dwelling was sprayed with D.D.T., and anti-malaria drugs were given to persons suffering from malaria. The programme was replaced by the national malaria eradication programme in 1958. One unit comprising one anti-malaria officer, eight inspectors and 228 field workers was established at Dehra Dun. Spraying of D.D.T., was carried out in all human dwellings and cattle sheds, twice a year. This continued till the end of the year 1963, when the spraying was gradually curtailed, and by the end of 1966 stopped. The surveillance work which started in 1960 consists of visits paid by the staff to the dwellings to collect blood smears from all fever cases, which are examined in the laboratory. Blood smears are also collected by doctors in hospitals, dispensaries and clinics and they are examined. On the recommendation of the independent appraisal team, the national malaria eradication programme entered the 'maintenance phase' on April 1, 1966. The anti-malaria officer who is posted at Dehra Dun is assisted by an assistant unit officer, 35 inspectors, 108 house visitors, four laboratory technicians and others. The following statement gives the results of the surveillance operations undertaken by the unit :

Year	No. of blood smears examined	No. found positive
1	2	3
1966	50,595	83
1967	1,19,364	132
1968	91,693	320
1969	96,629	133
1970	86,371	56

Family Planning

The family planning scheme was introduced in the district in 1967 and put under the charge of the district medical officer of health and now is under the charge of a deputy chief medical officer for the purpose who is assisted by health visitors and family planning health assistants. Vasectomy for men and tubectomy for women are publicised. There are three family planning centres, one each at Sahaspur, Doiwala and Kalsi. In addition there are four family planning sub-

centres one each at Bhauwala, Jeet Garh, Thanu and Rani Pokhari. Each centre is manned by health visitors and family planning health assistants. A mobile team under the charge of a male doctor undertakes vasectomy work, while another, in charge of a female doctor, looks after tubectomy work.

Efforts are made to publicise family planning through feature films, placards, posters, advertisements and personal contacts, and some ground has been broken. The achievements in family planning work are given below :

Year	No. of sterilisation operations performed	No. of loops inserted
1967-68	1,920	1,571
1968-69	1,973	795
1969-70	1,711	1,150
1970-71	1,393	991

District Branch of Indian Red Cross Society

The district branch of the Indian Red Cross Society was established at Dehra Dun in 1935. The district magistrate, and the chief medical officer of the district are its president and vice-president ex officio, and the municipal medical officer (health) Dehra Dun acts as its honorary secretary. The society provides relief to the people in times of emergency and natural calamities. It manages four maternity centres in Dehra Dun, one at Kalsi and another in village Korwa.

DIET AND NUTRITION

The economic condition of the people residing in the valley of the district is better than those who inhabit the hills. Endemic goitre which is associated with various other diseases is prevalent in the Jaunsar Bawar region of Chakrata tahsil. This is mainly due to the deficiency of iodine in soil and water. Iodised salt is now distributed in this region under a scheme of the Government of India.

In the district, rice, wheat and other grains are consumed, as also vegetables, fruits, milk, meat, fish and eggs, oils and fats, and sugar. The terrain of the hilly region requires a greater intake of cereals, root vegetables, meat and fish. The following statement gives the consumption of various items in 1971 :

Food Material	Consumption per head per day in gm. in district Dehra Dun	
	Valley	Hilly region
Cereals (wheat, rice, maize and <i>bajra</i> in the valley and wheat, rice, <i>ragi</i> , <i>jhingra</i> , and <i>koni</i> in the hills)	408	600
Pulses (gram, lentils, <i>urd</i> and peas in the valley and gram, peas, <i>gehat</i> , soyabean and <i>lobhia</i> in hills)	48	60
Vegetables (green, root and other vegetables). Vegetables peculiar to the hilly region are cucumber, giant capsicum and <i>uggal</i> stalks	30	20
Fruits (apples, <i>lichis</i> , mangoes, apricot, pears, figs, cherry etc.)	18	100
Milk and milk products	135 (only 15 per cent of the families consume milk)	50
Meat, fish and egg	8	40
Fats and oils (Ghee, mustard oil and vegetable oils)	88	40
Sugar and jaggery	40	40

Generally the diets are adequate in calories, total proteins but deficient in animal protein, calcium, vitamin A, riboflavin and vitamin C. The deficiency of calcium and vitamin C has been reported from a few places only.

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CHAPTER XVII

OTHER SOCIAL SERVICES

LABOUR WELFARE

For the administration of labour laws and implementation of labour welfare measures the district of Dehra Dun falls in the Meerut region of the State labour department. The district has a large number of commercial and industrial establishments governed by various labour laws. According to the census of 1971, the district had 16,599 people working in such establishment. They were employed in manufacturing processing, servicing and repairs (other than household industry) trade and commerce, transport, storage and communication. There are four labour inspectors posted at Dehra Dun, who look after the interests of labour generally and maintain liaison between employees and employers in the district. Broadly, the socio-economic problems of labourers relate to working conditions, wages, industrial relations, trade unions, social security and welfare problems outside their place of work. It is the responsibility of labour inspectors to ensure that labour laws are properly implemented by employers and all contraventions duly brought to book. Some of the labour Acts in operation in the district are briefly described below :

The Workmen's Compensation Act, 1923—This Act enjoins upon an employer the payment of compensation if death or personal injury is caused to a worker in an accident in the course of his employment and also if the worker contracts any of the diseases mentioned in the Act, as a result of his employment. The collector, Dehra Dun, is the *ex officio* compensation commissioner under the Act, for determining the amount of compensation payable to a workman. The following statement gives the amounts of compensation paid from 1966 to 1970 to injured workmen and dependents of workmen involved in fatal accidents :

Year	Fatal cases		Disablement cases	
	No.	Amount of compensation (in rupees)	No.	Amount of compensation (in rupees)
1966	20	1,00,987	4	15,170
1967	16	95,500	6	18,688
1968	28	1,61,800	3	4,575
1969	18	1,81,000	5	11,256
1970	27	1,78,975	18	34,176

The Indian Boilers' Act, 1923—This Act provides for the registration and inspection of boilers and prohibits the use of un-registered or uncertified boilers.

The Indian Trade Unions Act, 1926—The Act provides for the registration and cancellation of trade unions and empowers the registrar of trade unions, Kanpur, to check their activities and call for returns and scrutinise their working. The total number of trade unions in the district in 1971 was 64. These unions are corporate bodies which function in the interest of their members and aim at furthering good relations between employers and employees. They strive to improve the economic, moral, social and living conditions of labourers and to ensure that fair wages, healthy living and working conditions and proper medical and educational facilities to their children, etc., are made available by the employers.

The Employment of Children Act, 1938—The Act prohibits the employment of children below the age of fourteen years, in workshops and small-scale industries where *biris*, carpets, cement, soap, matches, explosives and fireworks are manufactured, cloth is printed, dyed and woven, mica is cut and split, hides are tanned and wool cleaned, etc. It also prohibits the employment of children below the age of fifteen years in any occupation connected with the transport of passengers, goods or mail, etc.

The U.P. Maternity Benefits Act, 1938—This Act provides for payment of cash benefits to women employees before and after child birth and for compulsory rest during such periods.

The Industrial Employment (Standing Orders) Act, 1946—The Act is applicable to factories and establishments in the district, employing a hundred workers or more. The Act regulates their conditions of service such as leave, absence, late-coming, supply of drinking-water during summer, industrial safety, rest pause, etc. It requires employers to frame standing orders defining the terms and conditions of employment. In 1970 as many as 49 cases of infringement of the Act were detected.

The Industrial Disputes Act, 1947 (Act, XIV of 1947) and the U.P. Industrial Disputes Act, 1947 (U.P. Act, XXVIII of 1947)—Both these Acts provide for the settlement of industrial disputes and prevention of lock-outs and strikes. The regional conciliation board first tries to settle disputes through persuasion and mediation. If success is not thus achieved, disputes are referred to the adjudication machinery of a labour court or an industrial tribunal which also first tries to forge an amicable settlement. Under these Acts, the labour inspector posted at Dehra Dun is required to conduct preliminary enquiries. He also ensures the implementation of awards given by the labour court and industrial tribunals. No prosecution was launched under the Act from 1970 to September, 1973 as the disputes were settled by conciliation machinery through persuasion and mediation.

The Factories Act, 1948—This Act seeks to regulate the conditions of work inside factories, such as the hours of work, leave and wages, safeguards for health, special provisions for young persons and women, welfare measures like first aid, canteens and supply of cool drinking-water in summer near the place of work, etc. In 1971 there were 80 factories in the district registered under the Act, and the number of contravention detected and prosecution launched were 19 and 3 respectively.

The Employees' State Insurance Act, 1948 (Act XXXIV of 1948)—With the enforcement of this Act certain benefits have been provided for employees of factories in the district. It provides safeguards to industrial workers against the risks of sickness, maternity, disablement and injuries sustained during employment etc., in the form of cash benefits.

The Act applies to all perennial factories employing 20 persons or more. An employee has to pay his share of the contribution. The scheme is implemented by the Employees' State Insurance Corporation, Kanpur, and provides for all the prescribed benefits to the insured employees. In 1970 as many as 2,208 patients were treated by the mobile dispensary maintained under this Act which is manned by one medical officer and four others.

The Minimum Wages Act, 1948—This Act authorises the State Government to fix the minimum limits of agricultural and industrial wages and to regulate the working hours etc., of certain types of industrial employment (enumerated in the schedule given in the Act) and on agricultural farms. Provision for a weekly holiday has also been made in the Act. The labour inspectors posted at Dehra Dun look after its enforcement in the district. As many as 430 cases of infringement of Act were detected in 1970.

The Motor Transport Workers Act, 1961—This Act applies to motor transport companies, which employ five persons or more. According to the provisions of this Act, these companies and undertakings have to be registered and have to make provision for recreation, rest-rooms, canteens, liveries, medical aid, daily and weekly rest periods, leave and holidays for their workers. The employment of children is prohibited under the Act and adolescents are employed only after tendering a fitness certificate from a medical authority. There are 10 such undertakings in the district. The labour inspector detected 23 cases of infringement of the Act in 1970-71.

The U.P. Industrial Establishments (National Holidays) Act, 1961—It applies to factories and establishments registered under The Factories Act, 1948 and provides that national holidays such as Independence Day, Mahatma Gandhi's birthday and Republic Day, be allowed to workers on full wages. As many as 27 cases of infringement of the Act were detected in 1970.

The Uttar Pradesh Dookan Evam Vanijya Adhishthan Adhiniyam, 1962—This Act repealed the U.P. Shops and Commercial

Establishments Act, 1947, in December, 1962. It is applicable to shop-keepers and owners of other commercial establishments and regulates matters like the hours of opening and closing of shops and commercial establishments, weekly closures and holidays and attendance, leave, payment of wages and conditions of service of shop assistants. The labour inspector detected 3,692 cases of infringement of the Act in 1970.

OLD-AGE PENSION SCHEME

The old-age pension scheme was introduced in the district on December 1, 1957, to provide pensions to old and destitute persons having no means of subsistence and no relations bound by custom or usage to support them. Since then the scope of this beneficent scheme, perhaps the first of its kind in the country, has been liberalised from time to time. The definition of the term 'destitute' was relaxed so as to include persons having an income up to Rs 15 per month and the age of eligibility for the pension was reduced to 60 years for a widow, cripple or a person totally incapable of earning a living on account of any other physical disability. The amount of pension was increased to Rs 20 per month in April, 1964. It is granted by the labour commissioner, U.P., but verification of age and other particulars is made in the district itself. By September, 1965, about 300 persons had derived benefit under this scheme. The following statement gives the number of persons who were receiving the pension as on December 31, 1970, in the district :

Tahsil	No. of pensioners		Total
	Men	Women	
Dehra Dun	55	150	205
Chakrata	1	1	2
Total	56	151	207

PROHIBITION

The district is not a dry area, but efforts, both official and non-official, have been made from time to time to enforce prohibition. In 1949, total prohibition was enforced in Rishikesh and a district temperance society for carrying out the temperance and prohibition programme, was constituted in 1957, with the president of the Zila Parishad, Dehra Dun, as its chairman, and the vice-chairman and a joint secretary being elected by the members of the society. However, little ground was broken. A new scheme was, therefore, introduced in the district in December, 1962. It aimed at curtailing the consumption of liquor by restricting the hours of sale, increasing the number of 'dry' days and fixing the maximum quantity of liquor which may be sold to an individual. Accordingly, the hours of sale

of intoxicants at excise shops have been fixed by government to curtail sales and thus help the cause of temperance. There is no sale of liquor and intoxicants on 'dry' days which are all Tuesdays, January 26, January 30 (the day of Gandhiji's assassination), Independence Day, October 2 (the birth-day of Gandhiji), Holi and Diwali.

Moral and social pressure is also exerted on people and they are persuaded to abstain from drinking liquor. Camps are held and stalls opened in fairs and exhibitions to promote prohibition and for weaning people from the habits of indulgence. Posters and placards depicting the disastrous effects of intoxicating drugs and liquor have been affixed at prominent places in the district. The Arya Samaj and Gandhi Smarak Nidhi also help in promoting temperance. It has been experienced that the extent of success of these schemes is directly related to the active participation of the people. Since legal and administrative measures, by themselves, have not been successful, the policy to educate public opinion against the consumption of liquor and other intoxicants has been adopted by the government. There are 24 liquor shops in the district, of which sixteen are in Dehra Dun tahsil, six in Dehra Dun city and two in Chakrata tahsil.

ADVANCEMENT OF SCHEDULED CASTES AND OTHER BACKWARD CLASSES

The work relating to the social, economic and educational betterment of the Scheduled Castes and Other Backward Classes was started in the district in 1957, when an assistant social welfare officer and a district Harijan welfare officer were posted. The work of Harijan and social welfare was combined in 1961, and entrusted to the district Harijan and social welfare officer who is assisted by two Harijan welfare supervisors, and two clerks.

A district Harijan *sahayak* committee functions at Dehra Dun, with the *adhyaksh* of the Zila Parishad as its chairman. The district planning officer and the district Harijan and social welfare officer act as secretary and joint secretary, respectively. All *pramukhs* of the development blocks, members of the State Legislative Assembly and chairmen of the local bodies in the district are its members. There are three sub-committees, viz., the cottage industries sub-committee, the educational sub-committee, and the sweepers' welfare sub-committee.

In 1971, there were 67,279 persons belonging to the Scheduled Castes and 61,672 persons belonging to Scheduled tribes in the district, comprising respectively 11.66 per cent 10.68 per cent of the total population.

The efforts of the government aim at bringing economic prosperity to the members of the Scheduled Castes and Other Backward Classes by developing agriculture and industries among them and raising their social status. Facilities for their education have been provided extensively, loans and subsidies on concessional terms have also been advanced by government to enable the members of the Scheduled

Castes and Other Backward Classes to develop and improve their agriculture and industries. In order to provide clean water, various schemes have been undertaken by the government in the Second and Third Five-year Plans.

Schemes	Expenditure in Second Five-year Plan (in rupees)	Expenditure in Third Five-year Plan (in rupees)	Expenditure to be incurred in Fourth Five-year Plan (in rupees)
Construction of houses	3,49,950	1,43,800	67,600
Development of cottage industries	45,060	1,54,650	1,46,700
Drinking-water scheme	48,600	13,000	87,000
Development of agriculture and horticulture	54,300	1,26,120	21,65,761

Financial assistance to the extent of Rs 58,912 in the form of 761 stipends and Rs 12,650 in 246 stipends were given respectively to the students belonging to the Scheduled Castes and Other Backward Classes in 1970-71. In the same year a sum of Rs 3,000 was distributed as stipend among 60 students of denotified tribes.

Relaxation in upper age limit for admission to the reservation of seats in educational institutions, free tuition, stipends, scholarships, financial assistance for the purchase of books and stationery, and free hostel facilities have been provided to the members of the Scheduled Castes, Scheduled Tribes, Other Backward Classes and Momin Ansars.

CHARITABLE ENDOWMENTS

There are a number of trusts in the district. The following statement gives some details about the important ones :

Trusts and its location	Income in 1970 (rupees)	Object
1	2	3
Mandir Shri Bharat Ji Maharaj, Rishikesh	1,15,000	Religions
Shri 108 Baba Kali Kamali Wala	50,00,000	Social work
Punjab Sindh Kshetra	1,15,000	Ditto
Darbar Guru Ram Rai, Dehra Dun	25,00,000	Religion and social work

(Continued)

1	2	3
Arya Dharm Sewa Sangh, Haripur Kela, Dehra Dun	25,000	Social work
Jain Dharmasala, Dehra Dun	30,000	Ditto
Shivaji Sewa Samiti Dharmasala, Dehra Dun	50,000	Social work
Ram Krishna Mission Ashram, Dehra Dun	10,000	"
Shahrani Ashram Thanigaon, Dehra Dun	15,000	Spiritual and social work
Manav Kendra, Dehra Dun	50,000	Ditto
Tapoban Ashram, Raipur Road, Dehra Dun	—	Ditto

Waqfs—The Shia Central Board of Waqfs, Lucknow supervises the administration of *waqf* Masjid Imamia, Dehra Dun. It was founded by Syed Mohammed Hasnain, in June, 1934. Its income, which is meagre, is used for religious purposes.

The U.P. Sunni Central Board of Waqfs, Lucknow, looks after 51 *waqfs* in the district. However, only seven of them are noteworthy, as the annual income of each exceeds Rs 1,000. Srimati Sakeena Lunia *waqf* is the largest in the district and yields an annual income of more than Rs 26,000. On the other hand there are two very small *waqfs* in the district, each with an annual income of about Rs 60. The following statement gives some information about the seven major Sunni *waqfs* in the district :

Waqf and its location	Date of foundation and name of founder	Income 1970 (in rupees)	Objective
Srimati Sakeena Lunia	17-12-1906 Srimati Sakeena	26,655.67	Charitable purposes
Masjid, Rajpur, Dhak Patti	29-1-1890 Srimati Munni	5,980.39	Ditto
Masjid Paltan Bazar, Dehra Dun	1-3-1899 Rahim Bux	5,289.50	Ditto
Abdullah Khan, Dehra Dun	5-10-1937 Abdullah Khan	3,653.00	Ditto
Jama Masjid, Chakrata	5-10-1937 Babu Mohammad Siddiq	1,886.98	Ditto
Masjid Naya Nagar, Dehra Dun	1293 Hijree Mohammad Ajim Khan	1,583.66	Ditto
Masjid Mohalla Kiratpur	24-4-1941 Sardar Yahya Khan and Kamaluddin	1,109.10	Ditto

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

PUBLIC LIFE

There seems to have been little organised political life in the district prior to the political awakening in 1921, with the launching of the non-co-operation movement under Gandhiji. Collections for the Swaraj Fund of Tilak, and picketing of dealers in foreign cloth, marked the beginning of the movement. During the movement several persons resigned their government posts and local leaders courted arrest. Parading of the streets by groups of youths singing patriotic songs was a regular feature of this time. Women, condemning government service, foreign cloth and liquor, also paraded with Congress flags. People spinning the *takli* (spindle) went out in processions, propagating the sale of *khadi*. The boycott of the visit of the Prince of Wales, the holding of a swadeshi bazar and a political conference in 1922 were outstanding features of an awakening public life.

After attainment of Independence, public opinion has become more organised and vocal. The fundamental rights guaranteed in the constitution have encouraged people to express their views freely on political, social or other matters. The common man has begun to realise his importance in the new democratic set-up.

Political Parties

There are five major political parties in the district—the Congress (R), the Congress (I), the Communist, the Communist (Marxist) and the Janta (combination of the former Jan Sangh, the Praja and Samyukta Socialists, the Swatantra, the Congress (O) and the Bhartiya Kranti Dal parties). Each party has its own district committee and other primary units in the district to execute its programmes and policies. It is not possible to assess the numerical strength of various political parties as this is subject to change from time to time. The Congress and the Jan Sangh have a considerable hold on the local population.

Besides a few independent candidates, the Congress, the Jan Sangh, the Hindu Mahasabha, the Revolutionary Socialist party and the Socialist party contested the first general elections to the State Legislative Assembly in 1952. In the general elections of 1957 only the Jan Sangh and Congress candidates contested, apart from some independent candidates. The Jan Sangh, the Congress, the Hindu Mahasabha, the Praja Socialist parties and the Communist Party of India contested the third general elections in 1962 together with several independent candidates. The general elections of 1967 was contested by the Samyukta Socialist, the Praja Socialist, the Jan

Sangh and the Congress parties only in addition to a few independent candidates. In the mid-term poll of 1969, the Samyukta Socialist, the Jan Sangh, the Congress, the Republican and the Praja Socialist parties contested. In the next elections in 1974, the Congress, the Congress (O), the Jan Sangh, the Communist Party (Marxist), the Bhartiya Kranti Dal and the Rashtriya Loktantrik Sangh contested.

Vidhan Sabha (Legislative Assembly)

For the first general elections to the State Vidhan Sabha in 1952, the district was divided into two constituencies—Chakrata-cum-Western Doon (North) assembly constituency and Western Doon (South)-cum-Eastern Doon assembly constituency—both being single-member constituencies. For the two seats there were 19 candidates of whom two belonged to the Congress, two to the Socialist, one each to the Jan Sangh, the Hindu Mahasabha and the Revolutionary Socialist parties, and the remainder were independent candidates. The Congress candidates won both the seats. For the second general elections of 1957, there were three constituencies—Mussoorie, Hardwar and Dehra Dun all being single-member constituencies. Hardwar town, though situated in Saharanpur district, formed a constituency of this district. For the three seats, 11 candidates contested the election. The Congress and the Jan Sangh put up three candidates each and the remaining 5 were independent candidates. Two Congress candidates and one independent were the winners. In the general elections of 1962, the number and names of the constituencies remained unchanged. There were 17 candidates for the three seats—3 Congress, 8 Jan Sangh, 2 Praja Socialist, 1 Hindu Mahasabha, 1 Communist and 7 independent. All the three winning candidates belonged to the Congress.

There was no change in the constituencies in the fourth general elections of 1967 also. In all, only 11 candidates contested the three seats, three of whom belonged to the Congress, two to the Jan Sangh, and one each to the Samyukta Socialist and Praja Socialist parties, and four were independent candidates. Among the three winners one belonged to the Congress and two were independent candidates.

On 25th, February 1968, President's rule was promulgated in the State. It was revoked on 26th, February, 1969, and a new government was formed after a mid-term poll in 1969, with no change in the constituencies. Among the 19 candidates, three belonged to the Congress, three to the Jan Sangh, two to the Samyukta Socialist party, one each to the Praja Socialist, the Proutist Block and the Republican parties and 8 were independent candidates. Among the three winning candidates two were from the Congress and one from the Jan Sangh.

The number of electors in the district in 1952 was 1,57,900, valid votes polled numbering 71,807 and invalid votes 97. In the general elections of 1957, electors numbered 1,97,082, the number of valid votes cast being 1,18,111, and 29 votes being found to be invalid.

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In the general elections of 1962, there were 2,31,362 electors and the numbers of valid and invalid votes were 1,27,184 and 5,581, respectively. In the general elections of 1967, there were 2,68,859 electors and the number of valid votes was 1,54,443, and that of invalid ones, 8,032. In the mid-term poll of 1969, the electors numbered 2,85,657, the valid and invalid votes numbering 1,55,815 and 3,725 respectively.

Given below is a statement indicating the number of seats contested and won by different political parties and the numbers and percentages of valid votes polled in favour of candidates set-up by each in the various general elections for the assembly constituencies :

Party/Independent	1952				1957			
	Contes- tants	Seats won	Valid votes polled	Percen- tage	Contes- tants	Seats won	Valid votes polled	Percen- tage
1	2	3	4	5	6	7	8	9
Bhartiya Kranti Dal	—	—	—	—	—	—	—	—
Communist	—	—	—	—	—	—	—	—
Communist Party (Marxist)	—	—	—	—	—	—	—	—
Congress	2	2	36,805	50.91	3	2	52,821	46.6
Congress (Organisation)	—	—	—	—	—	—	—	—
Hindu Mahasabha	1	—	1,117	1.56	—	—	—	—
Jan Sangh	1	—	4,745	6.65	3	—	17,895	15.82
Praja Socialist	—	—	—	—	—	—	—	—
Proutist Block	—	—	—	—	—	—	—	—
Rashtriya Loktantrik Sangh	—	—	—	—	—	—	—	—
Republican	—	—	—	—	—	—	—	—
Revolutionary Socialist	1	—	289	0.42	—	—	—	—
Samayukta Socialist	—	—	—	—	—	—	—	—
Socialist	2	—	5,165	7.24	—	—	—	—
Independent	12	—	23,686	33.21	5	1	42,895	37.49

[Continued]

Party/Independent	1962				1967			
	Contes- tants	Seats won	Valid votes polled	Percen- tage	Contes- tants	Seats won	Valid votes polled	Percen- tage
1	10	11	12	13	14	15	16	17
Bhartiya Kranti Dal	—	—	—	—	—	—	—	—
Communist	1	—	2,492	1.16	—	—	—	—
Communist Party (Marxist)	—	—	—	—	—	—	—	—
Congress	3	3	61,856	48.02	3	1	53,887	34.89
Congress (Organisation)	—	—	—	—	—	—	—	—
Hindu Mahasabha	1	—	144	0.11	—	—	—	—
Jan Sangh	3	—	18,257	14.36	2	—	23,054	14.98
Praja Socialist	2	—	14,189	11.16	1	—	11,140	7.21
Proutist Block	—	—	—	—	—	—	—	—
Rashtriya Loktantrik Sangh	—	—	—	—	—	—	—	—
Republican	—	—	—	—	—	—	—	—
Revolutionary Socialist	—	—	—	—	—	—	—	—
Sanyukta Socialist	—	—	—	—	1	—	2,462	1.59
Socialist	—	—	—	—	—	—	—	—
Independent	7	—	30,096	24.50	4	2	63,900	41.39

[Continued]

Party/Independent	1969				1974			
	Contes- tants	Seats won	Valid votes polled	Percen- tage	Contes- tants	Seats won	Valid votes polled	Percen- tage
1	18	19	20	21	22	23	24	25
Bhartiya Kranti Dal	—	—	—	—	1	—	6,295	3.60
Communist	—	—	—	—	—	—	—	—
Communist Party (Marxist)	—	—	—	—	1	—	1,153	0.66
Congress	3	2	74,548	42.27	3	3	91,467	52.44
Congress (Organisation)	—	—	—	—	1	—	805	0.17
Hindu Mahasabha	—	—	—	—	—	—	—	—
Jan Sangh	3	1	44,888	28.87	2	—	24,813	14.23
Praja Socialist	1	—	3,210	2.04	—	—	—	—
Proutist Block	1	—	157	0.10	—	—	—	—
Rashtriya Loktantrik Sangh	—	—	—	—	1	—	292	0.16
Republican	1	—	4,089	2.60	—	—	—	—
Revolutionary Socialist	—	—	—	—	—	—	—	—
Sanyukta Socialist	2	—	11,064	7.05	—	—	—	—
Socialist	—	—	—	—	—	—	—	—
Independent	8	—	19,858	13.20	14	—	50,088	28.14

Vidhan Parishad (Legislative Council)

For the elections of 1956 to the Vidhan Parishad the district was included in the U.P. (North-West) Local Authorities', the U.P. (West) Graduates' and the U.P. (East) Teachers' constituencies. In the elections of 1961-62 and 1966-67, the district was included in the Uttarakhand-cum-Kumaon Teachers', the Uttarakhand-cum-Kumaon Graduates' and Saharanpur-cum-Dehra Dun Local Authorities' constituencies for which biennial elections are held. A resident of the district was elected from the Uttarakhand-cum-Kumaon Graduates' constituency to the Vidhan Parishad in the year 1966. A resident of the district was nominated in 1972 and in 1974 another was elected by the U.P. Legislative Assembly.

Lok Sabha (House of the People)

For the elections to the Lok Sabha in 1952, the district formed only part of one single-member constituency, viz. Dehra Dun district-cum-Bijnor district (North-West)-cum-Saharanpur district parliamentary constituency. There were 4 contestants, one each from the Congress, the Jan Sangh and the Socialist parties and an independent candidate.

In the elections of 1957, 1962, 1967 and 1971 there was only one constituency, the Dehra Dun parliamentary constituency, and the numbers of contestants were three, four, four and eleven respectively.

In each of these elections the Congress won the seat, except in that of 1967 when an independent candidate was the winner.

In the elections of 1952, the total number of electors was 3,78,627. Among votes cast, 1,91,655 were valid. The numbers of electors in 1957 and 1962 were 3,68,682 and 4,04,429 respectively, and in 1967 and 1971, they numbered 4,65,679 and 5,14,650 respectively.

The statement below shows the numbers of seats contested and won by the different political parties and the numbers and percentages of valid votes polled by each party in the elections for the Lok Sabha so far :

Rajya Sabha—A candidate belonging to the district was elected to the Rajya Sabha in 1972.

NEWSPAPERS AND PERIODICALS

There has been a remarkable upsurge in the number of newspapers and periodicals published in the district in different languages after the attainment of Independence. The details of such newspapers and periodicals which were being published in the district in 1970 are as under :

Name of newspaper/periodical	Periodicity	Language	Circulation
1	2	3	4
<i>Janta Express</i>	Daily	Hindi	1,775
<i>Doon Darpan</i>	Ditto	Ditto	2,000
<i>Northern Post</i>	Ditto	English	1,999
<i>Agla Kadam</i>	Bi-weekly	Hindi	500
<i>Rashtriyata</i>	Weekly	Ditto	1,500
<i>Himanchal Times</i>	Ditto	Ditto	4,489
<i>Yug Vani</i>	Ditto	Ditto	2,000
<i>Chetawani</i>	Ditto	Ditto	2,000
<i>Naya Zamana</i>	Ditto	Ditto	1,650
<i>Seemant Prahari</i>	Ditto	Ditto	1,990
<i>Dun Reporter</i>	Ditto	Ditto	1,088
<i>Himanchal Times</i>	Ditto	English	2,400
<i>Dehradun Express</i>	Ditto	Ditto	1,983
<i>Dehra Patrika</i>	Fortnightly	Hindi	1,266
<i>Damama</i>	Ditto	Ditto	500
<i>Mussoorie Sandesh</i>	Ditto	Ditto	200
<i>Himanchal Times</i>	Ditto	English	4,495
<i>Nanhi Duniya</i>	Monthly	Hindi	1,150
<i>Ram Sandesh</i>	Ditto	Ditto	800
<i>Current Events</i>	Ditto	English	10,862
<i>Journal of National Academy of Administration</i>	Quarterly	Ditto	460
<i>Journal of the Timber Development Association of India</i>	Ditto	Ditto	250
<i>Glow (the)</i>	Ditto	Hindi, English	950
<i>Rendez Vous</i>	Ditto	Hindi, English, French	800

Other Periodicals

Hindi dailies published outside the district but read by the people here are the *Hindustan* and the *Nav Bharat Times*. Some of the dailies read by the English-knowing people of the district are the *Statesman*, the *Hindustan Times*, the *Times of India* (all published from Delhi) and the *The Pioneer* and the *National Herald* (both published from Lucknow).

Among the Hindi weeklies and monthlies published outside the district but read by the people here are the *Dharmyug*, *Saptahik Hindustan*, *Sarita*, *Navneet*, *Niharika*, *Sarika* and *Kadambini*.

The English weeklies which are read in the district are the *Blitz*, *Current Weekly*, *Hint*, *Screen*, *The Illustrated Weekly of India* and *Sport and Pastime*. The English fortnightlies which are popular are the *Filmfare*, *Star and Style* and *Caravan* and the popular English monthlies are the *Imprint*, *Life*, the *Mirror*, *Picturepost* and *Reader's Digest*.

Many free and informative publications of the Central and the State Governments, diplomatic missions in the country, various cultural, religious, spiritual and economic organisations, both national and international, and the agencies of the United Nations Organisations are also read in the district either in libraries or by prominent people.

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

In the remote past the pattern of family and caste system was such that there was no need for any specific organization to provide social and economic security. With the beginning of British rule in the country, social, cultural, educational and psychological forces emerged which necessitated a shift of emphasis from the joint family and the caste system (which formerly catered to the needs of orphans, widows, destitutes and other socially neglected persons) to specific social organisations. The introduction of modern educational and medical organisations shows the impact of western ideas. Social service in the past was voluntary, and was not organised in the manner as it is done today. It was spontaneous and was generally rendered by well-to-do persons of philanthropic zeal to meet the needs of the time, or when the district was a victim of calamities like famines, floods or scarcities. The institutions were run on donations, no government grants or aid being provided.

Voluntary social service organised by public effort is a recent phenomenon with its roots in the democratic forms of government, giving equal rights and opportunities to the people irrespective of caste or creed. After the attainment of Independence it began to be felt that in the field of social service State effort and assistance needs to be accompanied by public co-operation for better results. The government and the people have both been attracted towards the welfare of socially handicapped sections of society such as women, children, the disabled and old, and people belonging to the Scheduled Castes and Other Backward Classes,

An assistant social welfare officer was appointed in the district for the first time in 1954, who later came to be designated as the district Harijan and social welfare officer. It is his duty to put the voluntary social service organisations on a sound footing and co-ordinate their activities with those of governmental institutions working in the field. He also implements schemes of social welfare and supervises the working of government institutions.

A number of institutions look after welfare of children, youth, women, orphans and Harijans in the district. A brief description regarding the working of the important ones is given below.

Nanhi Duniya Anveshan Tatha Prakashan Vibhag, Dehra Dun

This institution was established in 1950, for reasearch and publication of children's literature for which a grant is also given by the government to it.

Nanhi Duniya Badhir Vidyalaya, Dehra Dun

Established in 1958 at Dehra Dun, the chief object of the institution is to make deaf and dumb children self-supporting. Education is also imparted to them up to class VII. Rs 5,000 was granted to the school for 1970-71 by government.

Akhil Bhartiya Mahila Ashram, Dehra Dun

Established in 1945, this Ashram is functioning in the Luxaman Chowk locality of Dehra Dun. The main aim of the institution is to help widows and to make them self-supporting.

Cheshire Home, Dehra Dun

The Dehra Dun branch was established in 1956 and is functioning at 16, Preetam Road. Facilities of lodging and nursing are available for invalids or permanently disabled persons with no one to look after them in their families or houses. The institution was sanctioned a grant of Rs 2,250 in 1970-71, for the repairs of its building.

Sharp Memorial School for the Blind, Dehra Dun

Established in 1887 at Rajpur, the school imparts education to blind girls and boys from the first to the seventh class. The government provided a sum of Rs 7,220 to the institution in 1970-71.

Shri Shradhanand Bal Vanita Ashram, Dehra Dun

Established in 1924 by the Arya Samaj, Dehra Dun, this institution is located at Tilak Road. Its main aim is to look after and protect orphans, helpless women and widows and to make them into model, self-supporting citizens. It received a grant of Rs 2,000 from the government in 1970-71.

Bharat Scouts and Guides Association, Dehra Dun

This is a branch of the all-India organization of the same name and was established here in 1946. The organization aims at training the youth to grow into good citizens by inculcating a sense of duty and self-discipline in them. The members are trained to render service of various types to the public during fairs and exhibitions and also at the time of natural calamities. It is strictly non-political, non-communal and non-military in character.

Indian Red Cross Society, Dehra Dun

This is one of the oldest organisations of the district and renders first-aid to the sick and injured during fairs, exhibitions and calamities. It also runs a maternity centre in the town.

Zila Apradh Nirodhak Samiti

The Zila Apradh Nirodhak Samiti was established about the year 1950. It is a branch of the Uttar Pradesh Apradh Nirodhak Samiti and its aims include prevention of crime and the rehabilitation of ex-convicts. The Samiti takes steps to reform the prisoners inside the jails and also pays attention to the problems of convicts relating to their families, property, etc; and gives them financial help on their discharge from prison. It has a managing committee of which the district magistrate is the ex officio chairman and one of the jail visitors of the district, ex officio honorary secretary.

District Temperance Society

The society was constituted in the year 1949 and aims at mobilising public opinion about the evils of drinking liquor and drug-addiction.

The society also helps in rehabilitation of ex-convicts, specially illicit distillers.

CHAPTER XIX

PLACES OF INTEREST*

Ajabpur Kalan (Pargana Western Dun, tahsil Dehra Dun)

Ajabpur Kalan, a large and ancient village, is situated about 2 km. east of Dehra Dun mainly on the right bank of the river Rispana Rao, where it is traversed by the Dehra Dun-Hardwar metalled road.

It has a population of 2,704 persons (1,477 males and 1,227 females), living in 320 houses, and covers an area of 458 hectares of which 250 hectares are cultivated, the chief crops being wheat, rice and sugar-cane. Some *hing* is produced besides a number of bulb manufacturing industries are also to be found here.

The source of irrigation is the Rajpur canal, and the land revenue currently is Rs 8,865. The place is electrified, and has a junior Basic school.

An important temple, dedicated to the goddess Sitala Devi, and mainly patronised by the Gurkhas of Dehra Dun is the venue of a fair named Mata is held here annually on the occasion of Dasahra. Ajabpur Kalan was formerly inhabited mostly by the Rawats of the region.

Annfield Grant (pargana Western Dun, tahsil Dehra Dun)

A large village situated on the Saharanpur-Timli-Chakrata metalled road at a distance of 38 km. from Dehra Dun, with a population of 4,521 persons (2,470 males and 2,051 females), and spread over an area of 1,670 hectares includes 15 hamlets.

In 1857 it was bestowed as a grant upon one major Rind, who established an agricultural colony inhabited largely by Indian Christians. At first the settlers were few but two years later their numbers rose to 150 and again to 302 by 1874. The main occupation of the people of the place is tea plantation, which was encouraged by Rind who had established a tea company and continued as its manager till his death. The jungle surrounding Arazi Annfield, consisting of 160 hectares, was also granted to Rind on lease. In 1887 the entire area covering Annfield Grant, the villages of Baitwala and Gangbhewa, and a portion of Arazi Annfield jungle grant, was sold to the raja Shamsher Prakash of Nahan (formerly in Sirmur raj and now in Himachal Pradesh) for Rs 1,40,000.

*Data regarding population, and total area relates to census 1971, and of cultivated area and land revenue pertains to the year 1878 fasli (1970-71)

The important crops of the village are rice, *bajra*, cotton, sugarcane, wheat and barley. Water is supplied to the fields from the Katapathar canal. The place which was formerly a centre of activities of Christian missionaries from Meerut has a church which maintains its own religious library, and a junior Basic school. The land revenue is Rs 9,861.

Basantpur (pargana Eastern Dun, tahsil Dehra Dun)

Basantpur, an ancient village situated on the outer Himalayan range lies at a distance of 35 km. from Dehra Dun.

In 1575 Husain Khan, a Mughal commander led an expedition against the people of the hills. He devoted his efforts to gain possession of Basantpur, then a town of considerable importance and reputed wealth in the Eastern Dun. After breaking the idols, defiling the temples and laying waste the whole country, Husain Khan returned with much plunder and a bullet in his side. Akbar had already received many complaints regarding the exacting behaviour of Husain Khan towards the Hindus, and on being informed of this unprovoked attack on a friendly town, recalled him to Delhi, where he died shortly afterwards of his wounds. In 1655, Basantpur was once again pillaged by Khalil-ullah Khan, another imperial general.

There are some mango groves which are the only signs of its earlier prosperity. There is also a stone known as *Chand Pathar* engraved with a moon and seven stars situated at a distance about half a kilometre from Basantpur. The village has a primary school.

Bhogpur (pargana Eastern Dun, tahsil Dehra Dun)

At the foot of the outer Himalayas, the village is situated at a distance of about 30 km. from Dehra Dun with which it is connected by a metalled road. The population of the village is 696 (386 males and 310 females) and it is spread over an area of 1,258 hectares. The village enjoys an excellent water-supply on account of the Jakhan canal. There is a junior Basic school, an intermediate college, and a canal inspection house. The small bazar serves as an important centre where produce of the hills is exchanged with that of the plains. The inhabitants of the Tehri region bring down large flocks of sheep and goats and usually halt at Bhogpur for a few days.

The non-co-operation movement launched by Gandhiji was strongly supported by the residents of Bhogpur, where picketing of shops selling liquor and foreign goods took place after a meeting held on December 21, 1921. From December 22 to December 24, 1921 parties of volunteers including women paraded the place carrying flags and shouting that government service and the use of foreign cloth and liquor was sinful.

Birmau (pargana Jaunsar Bawar, tahsil Chakrata)

The village of Birmau is situated within the *khat* of Birmau on the Chakrata-Massoorie motor road. The village is about 9 km. from Chakrata and about 80 km. from Dehra Dun. It has benefited

considerably by the Chakrata town which not only affords a market for the surplus produce and labour of the cultivators, but has also given it the advantage of vastly improved communications with the plains. The people are taking to growing potatoes which are exported through the mart at Chakrata to the plains. The population is 177 (101 males and 76 females) with an area of 76 hectares. There are 25 residential houses in the village.

Chakrata (pargana Jaunsar Bawar, tahsil Chakrata)

The headquarter of a tahsil, it is situated at an elevation of 2,093 metres above sea level, at a distance of about 93 km. from Dehra Dun and 123 km. from Saharanpur. It is connected by metalled road with Dehra Dun, Saharanpur and Vikasnagar and is at a distance of 40 km. from Kalsi and 61 km. from Mussoorie by the hill road. The population of Chakrata is 6,105 (5,338 males and 767 females) and is spread over an area of 15.98 sq. km.

It is said, that formerly there was a lake at the place which is now called the pologround, and flocks of *chakor* birds used to come to its waters. Hence this place was previously called Chakor That—a place of Chakors—by the local people, and in course of time it came to be known as Chakrata or Chakrota.

The principal crops are wheat, paddy, *mandua*, barley, maize jowar and potato. There is a forest rest house with a fascinating view of the Himalayas, a Zila Parishad dak bungalow, and two dharmshalas.

The place has importance also due to its peculiar social customs based on polyandry. There are some beautiful spots for tourists. Although the scenery around Chakrata is generally bleak and bare except towards Deoban, on the Simla road, some of the finest views in the hills are to be obtained. There is a small market and some residential houses, and kerosene oil lamps are still used for the purpose of street lighting. Tiger Fall, which is one of the highest falls in the State is situated at a distance of 5 km. from Chakrata. Government bus service is available between Dehra Dun and Chakrata, there being only one-way traffic after Kalsi, for which gate timings are maintained.

Chakrata is the central place of the area, having the courts of the subdivisional magistrate and tahsildar and offices of the divisional forest officers of the Chakrata and Tons divisions, the subdivisional officer of the public works department, the horticulture officer, and the project officer. A subcentre of the Forest Research Institute is also located here. There is a hospital and veterinary hospital at Chakrata. It is the headquarters of a development block, which has 7 *nyaya* panchayats within its jurisdiction. The State Bank and the district co-operative bank have also a branch each.

Dak Pathar (pargana Western Dun, tahsil Dehra Dun)

Dak Pathar, was an insignificant place before Independence but it has gained importance during recent years. Situated amid scenic

surroundings at a distance to 45 kilometres north-west of Dehra Dun on the left bank of the Yamuna, the place has developed as an ideal picnic spot of tourist interest. The place is electrified and has a population of nearly 2,000 souls. It possesses two junior Basic schools, a dispensary and a small market. Private buses are available from Dehra Dun to Dak Pathar.

Dehra Dun (pargana Western Dun, tahsil Dehra Dun)

The city which gives its name to the district is situated at an elevation of 709 metres above the level of the sea, on the road connecting Mussoorie with the plains, and is 67 km. distant from Saharanpur, 35 km. from Mussoorie and 11 km. from Rajpur. The road to Saharanpur is metalled throughout. The railway line enters district Dehra Dun near Hardwar and runs almost parallel with the Siwaliks as far as Dehra Dun. The trade routes connecting Dehra Dun with the plains are the Roorkee-Dehra-Rajpur-Landour and the Saharanpur-Chakrata roads.

The climate of the city is temperate. The hot winds which accompany the advent of summer are not as scorching as in the districts lying south of Dehra Dun. During rest of the year the climate is pleasant.

The city, spreading over an area of 56.75 sq. km., has a population of 2,03,464 souls (females 89,636) and comprises the municipality, and the area of the Forest Research Institute.

The municipality of Dehra Dun covers an area of 81.08 sq. km. and has a population of 1,66,073 persons (females 74,411). It has been divided into 13 wards—Rajpur Old Dalanwala, Karanpur, Dalanwala, Paltan Bazar (Lunia Mohalla), Dharampur, Lakhi Bagh, Luxaman Chowk, Dhamanwala, Moti Bazar (Mannuganj), Khurbaura, Chukhuwala and Hathibarkala.

The Forest Research Institute is situated at a distance of about 5 km. from Dehra Dun on the Chakrata road. It is the only institution of its kind in Asia and is world famous for its research work in forestry. It also imparts training to forest officers. The institute is spread over an area of 4.69 sq. km. with a population of 3,754 (females 1,606).

The temple or Gurudwara of the Udasis, the sect of ascetics founded by Guru Ram Rai, was built in 1699 A.D. in the locality of Dhamanwala. The central block in which the bed of the guru is preserved is a handsome structure, designed in the style of the emperor Jahangir's tomb at the corners, it has smaller monuments in memory of the guru's four wives. The model adopted has naturally given a Muhammadan appearance to the shrine, quite curious in a place of worship built by Udasis, who are said to have suffered a lot at the hands of the Muslims. Brick, plastered over and painted in imitation of mosaic, forms the material of the building.

The time fixed for the annual ceremonies in memory of Guru Ram Rai is that of Holi, when a fair lasting ten days is held and free food is supplied to hundreds of pilgrims by the *mahant*. The management of the *gurudwara* also runs a degree college, an intermediate college for boys and another for girls.

The other place of importance at Dehra Dun is the Robber's cave popularly known as Guchhu Pani, situated at a distance of about 7 km. by metalled road followed by one km. on foot from Dehra Dun. The cave is a natural picnic spot surrounded by hills where water suddenly disappears from sight and goes under ground only to reappear after a few yards in the form of a stream.

The temple of Tap-Keshwar Mahadeo is situated at a distance of about 6 km. from Dehra Dun by the side of a seasonal river, where water falls drop by drop from the top of a rock on the lingam. The place is easily approachable by a metalled road.

Raipur spring is another picnic spot and is situated at a distance of about 5 km. from the town. It is also easily approachable by road.

Dehra Dun has been for many years one of the best known educational centres in northern India. There are 87 secondary schools and a women's degree college besides many public schools, some of the important ones being the Doon school, St. Thomas school, Convent of Jesus and Mary, Col. Brown's school and The Welham school. There are two schools for the blind, one for adults and another for boys and girls, and one named Nanhi Duniya for deaf and dumb children. In addition to these recognised institutions which are being run privately, there are central schools run by the Survey of India and the Forest Research Institute, Dehra Dun.

There is an Arya Samaj Mandir in Moti Bazar, a beautiful Jain Mandir with images of the Jain Tirthankars in Jhanda Bazar and a temple dedicated to Krishna known as Geeta Bhawan. Besides these, several other religious places in Dehra Dun city such as, Brahm Kumari Ashram, Rajpur road, Mehrababa Ashram, Rajpur, and Adyota Ashram, Machhi Bazar, attract a large number of persons on religious occasions.

The city possesses a number of hospitals of which the main are the Doon Hospitals, for males and females, a maternity centre run by Nagar Palika, the Gandhi Centenary Eye Hospital, and I.D. Hospital run by Nagar Palika. In addition to these the Nagar Palika, Dehra Dun maintains eight dispensaries in different wards of the town. Coronation Hospital and Maclaren Leper Asylum are run by the State Government and the forest department maintains a hospital at Dehra Dun.

The city has many beautiful rest houses like the circuit house, forest rest house, canal rest house, P.W.D. inspection house and municipal rest house. There are many cinema houses for the recrea-

tion of the public such as Digvijaya talkies, Prabhat talkies, Capri theatre, Natraj picture house, Empire talkies, Odeon theatre, Orient cinema, Laxmi talkies and Filmistan. It has two important parks known as the Gandhi Park and the Pande grounds.

There are three dharmsalas in the city, the Agrawal and the Jain dharmsalas are located on the station road and the Shivaji dharmasala on Saharanpur road.

The city is visited by a large number of tourists every year many of them enroute to Mussoorie, known as the Queen of hill stations. Among the important hotels, which provide accommodation to the tourists, are the Aroma, on New road, the Central and the Connaught on the Chakrata road, the Oriental at the Darshani Gate, the Prince on the Hardwar road, the Regent at Dalanwala, the Sukhsadan, on E.C. road, the Tourists and the Victoria on the Gandhi road, the White House on the Subhash road, the Doon House on the New Survey Road, and the Doon Guest House, Dun View, Indian, Kwality, Majestic, Metro, Pasha and the Park View on the Rajpur road.

Dehra Dun is well linked with Delhi, Bombay, Calcutta, Varanasi and Lucknow by rail and roads. Besides a regular bus service, metred taxis and tongas ply on the city roads.

Paltan Bazar, the biggest shopping centre, is situated in the heart of the city near the Clock Tower from where one can have all kinds of fabrics, readymade garments, stationery items, grocery and other articles of daily use. It also contains the biggest grain *mandi* of the city and close by is located the vegetable market.

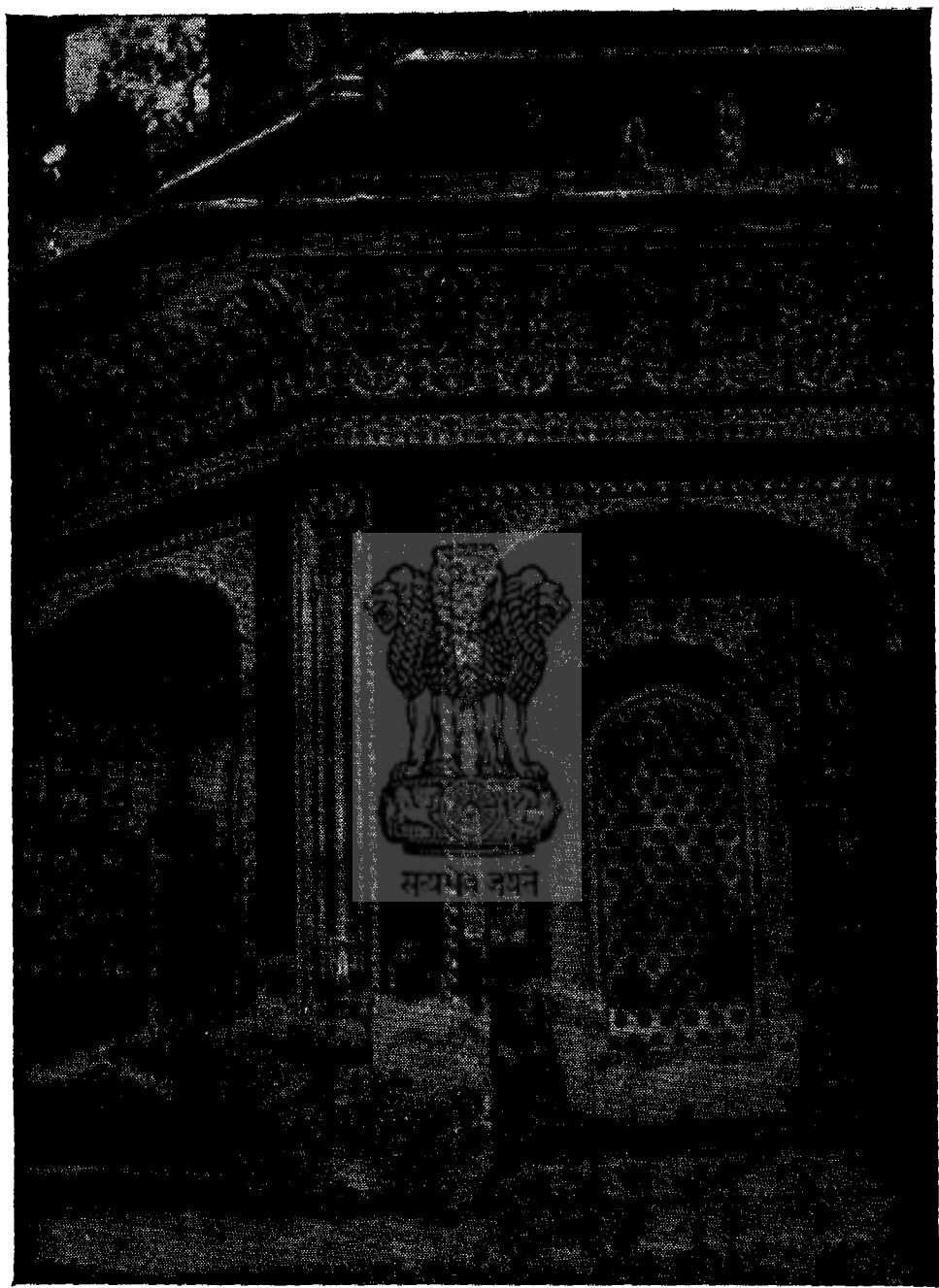
In continuation of the Paltan Bazar there is the sophisticated Rajpur road market where one may find commodities varying from a small pin to costly jewellery. A number of banks are also located here.

Astley Hall, an important trading centre on the Mussoorie road, is a huge building accommodating a large number of big and small shops, restaurants and banks.

Adjoining Astley Hall is the Sahkari Bazar (super market) which is comparatively a small market running on no profit-no loss basis. It mostly distributes articles of every day use.

Yet another shopping centre of the city is the Connaught Place which is located on the Chakrata road. Here are displayed for sale all sorts of goods from tapestries to auto-parts.

A number of industries and factories are situated in the city manufacturing bulbs, toys, agricultural implements, wire nails, razor blades, pullies and carding machines, auto accessories, optical lenses, rubber goods, plastic goods, carpets, thermometers, glass syringes, Ayurvedic medicines etc.



**Beautifully painted panels on the shrine of Guru Ram Rai's Gurudwara
(built during Aurangzeb's reign), Dehra Dun**

Doiwala (pargana Eastern Dun, tahsil Dehra Dun)

The village lies on the Dehra Dun Hardwar road at a distance of about 19 km. from Dehra Dun. The population of the place is 264 (141 males and 123 females) spread over an area of 71 hectares. Doiwala has a railway station which gives the place much of its prosperity, much of its fire wood, timber, *Basmati* rice, stone and lime finding an outlet by the railway. There is a hospital, a junior Basic school, an intermediate college and a small bazar. The place is the headquarters of a development block which has 10 *nyaya* panchayats. There is a maternity and a child welfare centre and a family planning centre. Sugar, *gur*, agricultural implements, pencils and wooden tools are also manufactured here and there is also a smithy and a government sericulture farm.

East Hope Town (pargana Western Dun, tahsil Dehra Dun)

East Hope Town is situated in the western Dun at a distance of about 10 km. from Dehra Dun. The place covers an area of 2,189 hectares and has a population of 6,027 persons (3,247 males and 2,780 females). It lies on both the sides of river Asan which is the main source of water-supply to the tea garden. There is a junior Basic school in the village.

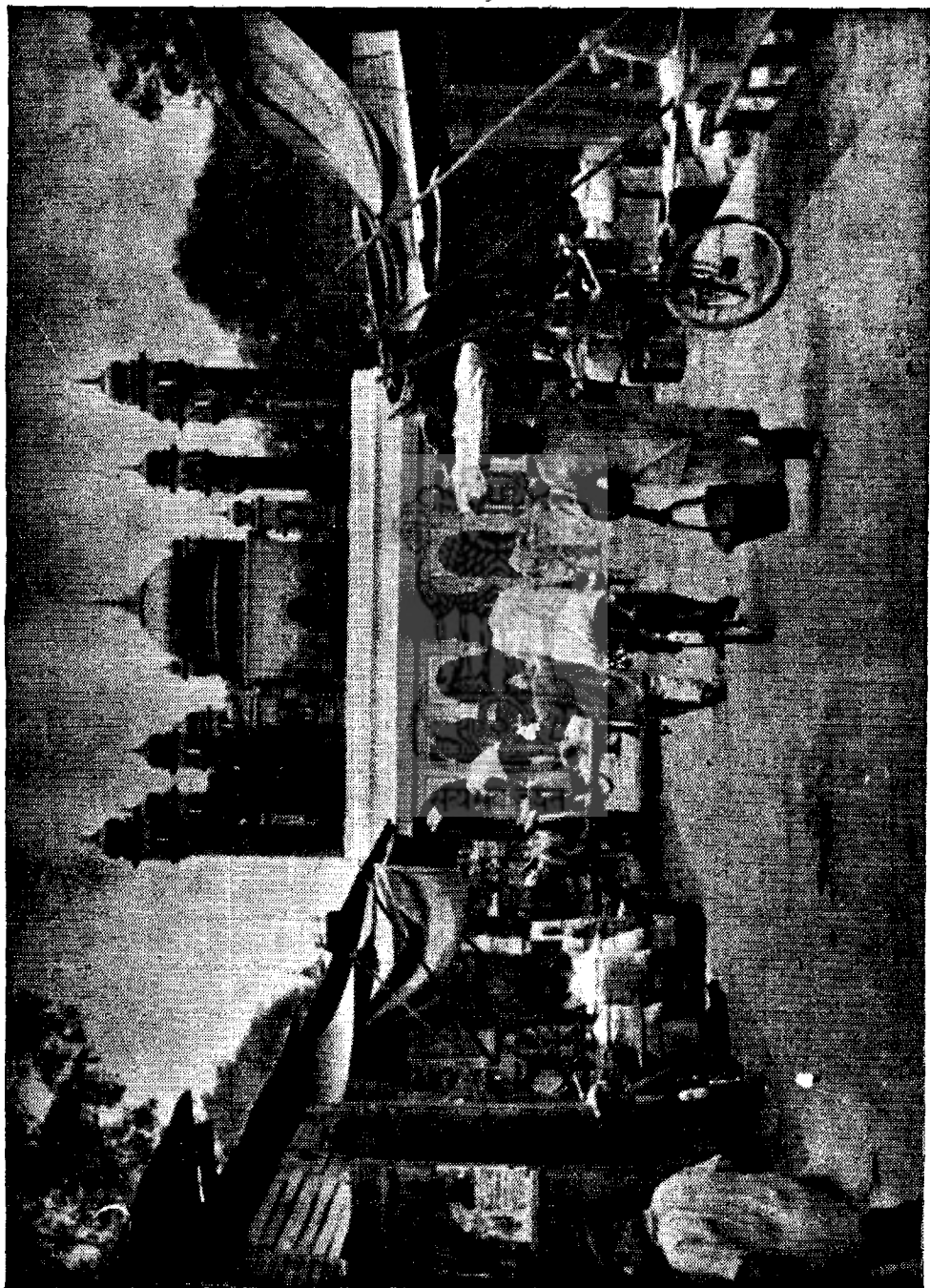
Kalanga (pargana Western Dun, tahsil Dehra Dun)

The hill of Kalanga, more popularly known as Nalapani, derives its name from a spring of excellent water carried by pipes to the town of Dehra Dun. It lies on the highest point of a low spur about 5 km. north-east of Dehra Dun and is connected with district headquarters by a metalled road. The hill itself is not more than 182 metres high and is very steep except towards the south where the fort had been built, and was then as now covered with a jungle of sal trees.

At the outbreak of the war in 1814 the fort of Kalanga which was held by the Gurkha troops, under their leader Balbhadra Singh Thapa, was attacked by the British. After making two unsuccessful attempts the British were able to capture the fort in 1815, who then razed it to the ground before the troops left and now but a slight unevenness marks the spot where the great fight took place. Two monuments were erected, one in the memory of Gillespie (the British general) and his officers and soldiers who died there, and the other in memory of Balbhadra Singh Thapa and the gallant Gurkhalis defenders of the fort.

Kalsi (pargana Jaunsar Bawar, tahsil Chakrata)

Lying at an elevation of 553.9 metres above sea level Kalsi is situated on the left bank of the Amalava stream which falls into the Yamuna. It contains an old tahsil building, a library, and a maternity and child welfare centre and is connected by road with Dehra



Another view of Guru Ram Rai's Gurudwara (built during Aurangzeb's reign), Dehra Dun

Dun which is at a distance of 41 km. from this place. The population of Kalsi is 518 (346 males and 172 females), and the village is spread over an area of 59 hectares.

The scenery around Kalsi is picturesque. From the Yamuna up to Kalsi the land on the western bank of the river is formed in two successive ledges or steps, each about 30 metres high. Near the foot of the upper ledge is the Kalsi stone containing one of Asoka's edicts. It is reached by a path which goes off from the main road, nearly opposite the turning to the Tilwari dak bungalow.

The Kalsi stone is a huge quartz boulder some 3 metres high, 8 metres long and 2.4 metres broad at the base, the breadth diminishing towards the top. The south-eastern face has been partly smoothed and bears the greater part of the inscription, but a portion of the record has been inscribed on the left hand side of the rock, the prepared surface having been evidently found insufficient for the whole. On the right hand side an elephant is traced in outline with the word 'gajatame' between the legs. Some call it 'chitra-sila' (the inscribed or pictured stone). When first discovered by Forrest, early in 1860, the letters of the inscription were hardly visible, the whole surface being incrustated with the moss of ages; but on removing the same, the surface became nearly white. On comparison with the other edicts the one at Kalsi was found to be in a more perfect state than the others, and more especially so in that part of the 13th edict which contains the names of the five Greek Kings, Antiochees, Ptolemy, Antigons, Magas and Alexander. The stone has been declared as a protected monument.

Prior to the amalgamation of pargana Jaunsar Bawar to the Dun, Kalsi used to be the headquarters of the *diwan* and *peshkar* of the pargana. Later it was the headquarters of a tahsildar, which was subsequently transferred to Chakrata. The traders of Kalsi still do a little trade in the products of the hill pargana such as turmeric, ginger, wax, honey, walnuts, soap-nuts, antimony, red pepper, sheep, goats, and blankets. Kalsi is also the headquarters of the development block of the same name which has 6 *nyaya* panchayats within its limits. Kalsi is the winter headquarters of the divisional forest officer of Jaunsar Bawar. A government dairy-cum-cattle breeding farm, and the offices of the soil conservation officer, are also located at this place. Besides these, there is a forest rest house, Zila Parishad dak bungalow, an artificial insemination centre and a hospital. One centre of the Khadi Gramodyog board is functioning here and training is being imparted in the wool industry. Kalsi has two senior Basic and a junior Basic schools and is electrified.

Kalyanpur (pargana Western Dun, tahsil Dehra Dun)

The village of Kalyanpur is situated at a distance of about 38 km. from Dehra Dun and about 18 km. from Sahaspur. It was once the headquarters of the old pargana of the same name which was subsequently abolished and contains a few mounds which are said to be the ruins either of some government building or of an old fort. The

inhabitants of the village are mostly Banjaras whose main occupation is cattle breeding. The place has a junior Basic school and a cattle pound. The village has a population of 176 persons (93 males and 83 females) and an area of 133 hectares.

Kaulagarh (pargana Eastern Dun, tahsil Dehra Dun)

Kaulagarh, formerly known as Kaulagir, is connected with the district headquarters by a metalled road. The village, which is assessed to an annual revenue of Rs 844, possesses development block headquarters, veterinary hospital, a junior Basic school, miniature bulb factory and a branch of the Forest Research Institute. The main crops are wheat and rice, the source of irrigation being the Rajpur canal. Atkinson identifies the village with Kilaghar overrun by Khalil-ullah Khan in 1664.

Lakhamandal (pargana Jaunsar Bawar, tahsil Chakrata)

Lakhamandal is a village on the bank of the Yamuna, at an elevation of 1,110.36 metres above the sea level. Situated at a distance of about 35 km. from Chakrata and about 128 km. from Dehra Dun, it lies on the extreme edge of the district and previous to the British occupation was claimed by both the states of Sirmur and Garhwal. Providing considerable material of interest to the antiquarian it contains temples dedicated to Siva, the five Pandava brothers, Parasuram and Kedar. It is said that the Kauravas had built their 'Laksha Grah' (house of lac) here having planned to burn the Pandavas alive therein. In the month of Bhadra (August-September), the people assemble annually to worship at the shrines. Two remarkably well executed figures in stone, one of Arjuna and the other of Bhima are available in the village, but their faces, it is said, had been mutilated by the Rohillas. There is also at this place a narrow underground passage leading to the Yamuna. In April a big fair known as Bissue is held in the village.

An inscription has been found at Lakhamandal which shows the dedication of a temple of Siva by a princess Isvara, who belonged to the royal race of Singhapura, for the spritual welfare of her deceased husband. The monuments at Lakhamandal have been declared as protected monuments.

It will doubtless be interesting to go through J.B. Fraser's description of Lakhamandal, as seen by him in the year 1815, and which runs as follows. "This village is situated almost upon the banks of the river. It is claimed by Sirmore and Gurhwal. It cultivates the land of each State, and pays an assessment to both. It is apparently wholly appropriated to the maintenance of several temples and their priests; and there are some fine rich pieces of land, both on the banks of the Jamuna and of a nullah a little farther on, set aside for this holy purpose; for which the village pays half tribute to each State. There is a neat temple to Seewa, and to the five brothers, called the Pundos, viz. : Joodisthul, Bheem Singh, Arjun, Sahadeo, Nircola; one to Bhysram and to Purseram; an old ruined place of worship to

Mahadeo, under the name of Kedar, and some curiously carved stones, representing the Hindoo deities. Two figures in stone, representing Arjun and Bheem Singh are remarkably well executed; but their faces have been mutilated, it is said by the Rohillas in an old incursion. There is also a curious stone, representing in relief a number of the Hindoo Divinities—Ganesh, Bhawanee, & co.—which are very readily distinguishable. There is also at this place a narrow passage leading under ground through the rock to the river side, used, it is said, by the people of the country in time of danger, when pressed by their enemies."

"Opposite to this village, Birnee-ke-gadh, a large ravine proceeding from the lofty peak, Baugee-ke-teeba, debouches into the Jamna. In this ravine there is a curiously situated house, on a small *teeba* rising from the nullah belonging to a Zamindar of some consequence, called Bhoop Singh. Our route now lay along some table land, just on the river bank. Passing Bundergurree, ruined fort situated on a *teeba* 200 feet high above the road, we descend to Neekrall-ke-gadh. This is said to be the boundary here between Sirmore and Gurhwal, but there seems to be a tract of debateable land around Lak Mundul, (sic) which contains some spots of level cultivation far richer than that we have generally met with in the hills. The stream in this nullah is very considerable, and is said to take its rise in Thirar-ke-teeba, (sic) two days journey from hence; its immediate banks are steep, rocky, and woody; and much alder grows on the edges of the water." The population of Lakhamandal is 258 (184 males and 124 females) with an area of 36 hectares.

Lakhwar (pargana Jaunsar Bawar, tahsil Chakrata)

Lakhwar, a village is situated on the Mussoorie-Chakrata road, at a distance of about 24 km. from Mussoorie and about 34 km. from Chakrata. It lies at the extreme south-east of pargana Jaunsar Bawar about 2 km. above the right bank of the Yamuna. There is a library and a maternity and child welfare centre in the village. The population is 362 (188 males and 179 females) which is spread over an area of 214 hectares. In the month of August a fair called Jagra attended by about 2,000 persons is held in the village. It is connected with Mahasu *devata* who is the deity of this region. On this occasion the image of the deity is taken out from the temple for being bathed.

The hills are dry and unproductive with little or no forest and limited grazing area. A little turmeric is grown in the village. There is a senior Basic school, a junior Basic school, a panchayat *ghar*, a seed store, and a dak bungalow maintained by the Zila Parishad.

Lister Grant (pargana Eastern Dun, tahsil Dehra Dun)

This village is also known as Listerabad Grant and is situated at a distance of about 30 km. south-east of Dehra Dun between the river Song and the Jakhan canal. The name of Lister Grant is derived from the firm Messrs. Lister and Company which used to deal in

silk. The village has an area of 447 hectares of which 204 hectares are under the plough, and are irrigated from the Jakhan canal which has been brought all the way from the Song river above Songtiwala. The main crops are rice and wheat and the place yields a land revenue of Rs 1,065.

The soil of Lister is rich, and water for irrigation cheap. Formerly, there was scarcity of drinking-water but now the problem has been solved. Much credit goes to Chaudhri Sahib Ram of Dunga for the development of the village, because besides investing capital over the repairs of the canal, he also stopped the depredations of deer and pig by fencing.

Mussoorie (pargana Western Dun, tahsil Dehra Dun)

Mussoorie, a hill station and a municipality is situated about 11 km. from Rajpur by the old path and about 22 km. from Dehra Dun at an elevation varying from 1,828 to 2,183 metres above the sea level. The place is said to have derived its name from the plant of *masur* (*Coriana nepalensis*) which is abundantly grown in Mussoorie. This theory is supported by the fact that the road, known as Convent lane, is called by the people of this region as Mussoorie Khala. The only objection to this derivation is the fact that the name of the place is invariably pronounced by some inhabitants as Mansuri, and if the former derivation is accepted (from the *masur* plant), it is difficult to account for the presence of the alphabet *n* in the first syllable of the name.

Dehra Dun is the terminus of the Northern Railway from where Mussoorie is connected with an all weather smooth metalled road, and a bus service, which also connects it to Saharanpur, Roorkee and Delhi. People desirous of going on foot can reach Mussoorie from Rajpur via a bridle road running for about 11 km. The place formed part of the dominions of the Garhwal rajas in the past from whom it was captured by the Gurkhas sometime in 1803. Ultimately it fell to the British in 1815.

In 1828 an Englishman, named Young, accompanied by a hunting party, became the first man to construct the first residential house, 'the Mullingar,' on the Camel's back hill which is encircled by a road leaving the Mall near the library and rejoining it behind the Rink. The main and subordinate ridges are intersected by excellent paths. The new circular road springs off just above the Municipal gardens at one end and, skirting the south side of Vincent's hill, emerges some few hundred metres above the library. From it some very fine views of the Dun can be obtained on any clear day. Arrangements have also been made to reach Camel's back hill by an electric trolley, which goes up from the Mull road near Hakman's hotel. The Camel's back hill is also known as the Gun Hill because a gun kept there was fired every day at 12 noon as a time signal during the British rule. Owing to an accident the gun was removed in the early twenties and the top was utilised for construction of a huge water reservoir to form the main source of water-supply to the town. The height of

this spot is 2,142 metres above the sea level. The place is also easily accessible through a pucca road, about half a kilometre from the Mall. The top commands a very beautiful view both of the hills as well as the valley. It has now three water reservoirs with a shed for sight-seers. On clear days, one can see even the Ganga and the Yamuna from this place. The sunset from this place looks extremely charming as the great red disk slowly sinks behind the horizon.

Mussoorie came into prominence in 1827 when many English men started settling there. They found that Mussoorie could provide a convalescent centre for sick British soldiers. In 1829 Colonel Everest, the first Surveyor General of India, opened his office and took up residence at Mussoorie. The salubrious climate and beautiful scenery of Mussoorie were thus exposed to the public eye, and attracted thereafter a perpetual stream of lovers of nature. Gradually many buildings emerged all over the hill giving the place the shape of a township. The flat open spaces along the alignment of the present Mall on the ridge used formerly by the villagers of Bhatta and Kiarkuli for keeping their cattle during the rains, became now occupied by houses, shops, schools, hotels, hostels and churches.

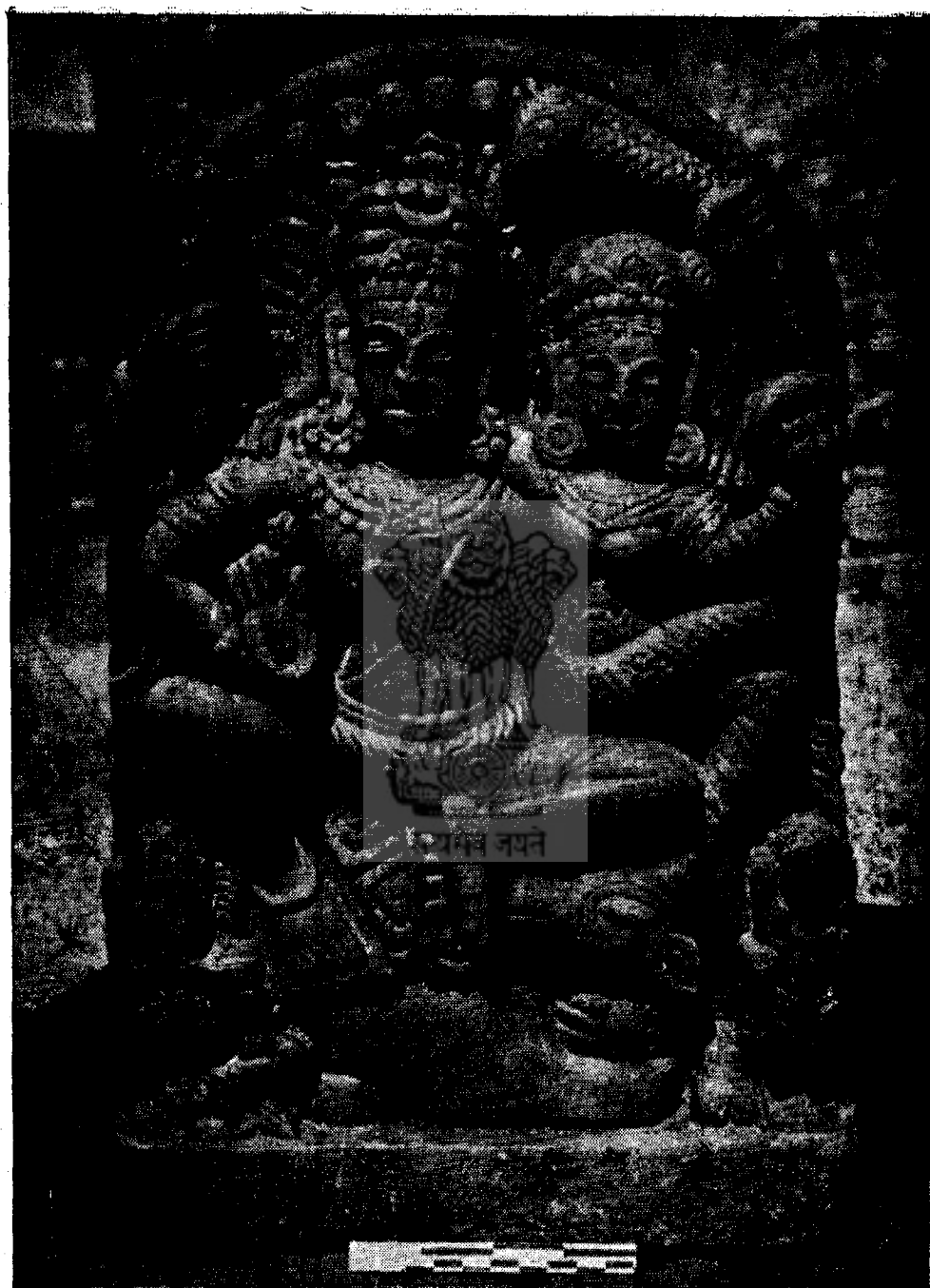
In 1884, the first school was started at Mussoorie by Mackinnon. In 1886 Christ Church was erected by Captain Rennie Tailyour of the Bengal Engineers, and in 1841 the Himalaya club was formed.

In the beginning of this century Mussoorie was attracting a large number of visitors, the bulk consisting of Europeans. Consequently, a number of hotels were constructed the principal ones being the Himalaya, the Charleville, the Woodville, and the Savoy.

To provide entertainment to the visitors and education to their children, a number of clubs and educational institutions sprang up. The Himalaya club comprised of a library, ball-room, dining room, and a billiard saloon besides other amenities. In 1849, Rev. R.N. Maddock established the Mussoorie school which was purchased by the Diocesan Board of Education in 1867. It had some 96 boarders and 14 day pupils and provided education up to the B.A. standard. It was affiliated to the Calcutta University. The Roman Catholic School, St. George's College (Manor House) was founded by Bishop Carli in 1853, and had 81 boys on its rolls. The Rev. H. Sells conducted a preparatory school for young boys.

Formerly, from the middle of April to the middle of October, Mussoorie used to be the headquarters of the General Commanding the Meerut Division, the Commissioner of the Meerut Division, the Great Trigonometrical Survey, the Superintendent of Dehra Dun, and the Judge, Small Causes Court of Dehra. The offices of the superintendent (magistrate) and his assistant and those of the Judge of the Small Cause Court and the police superintendent were housed in one and the same building on the Mall.

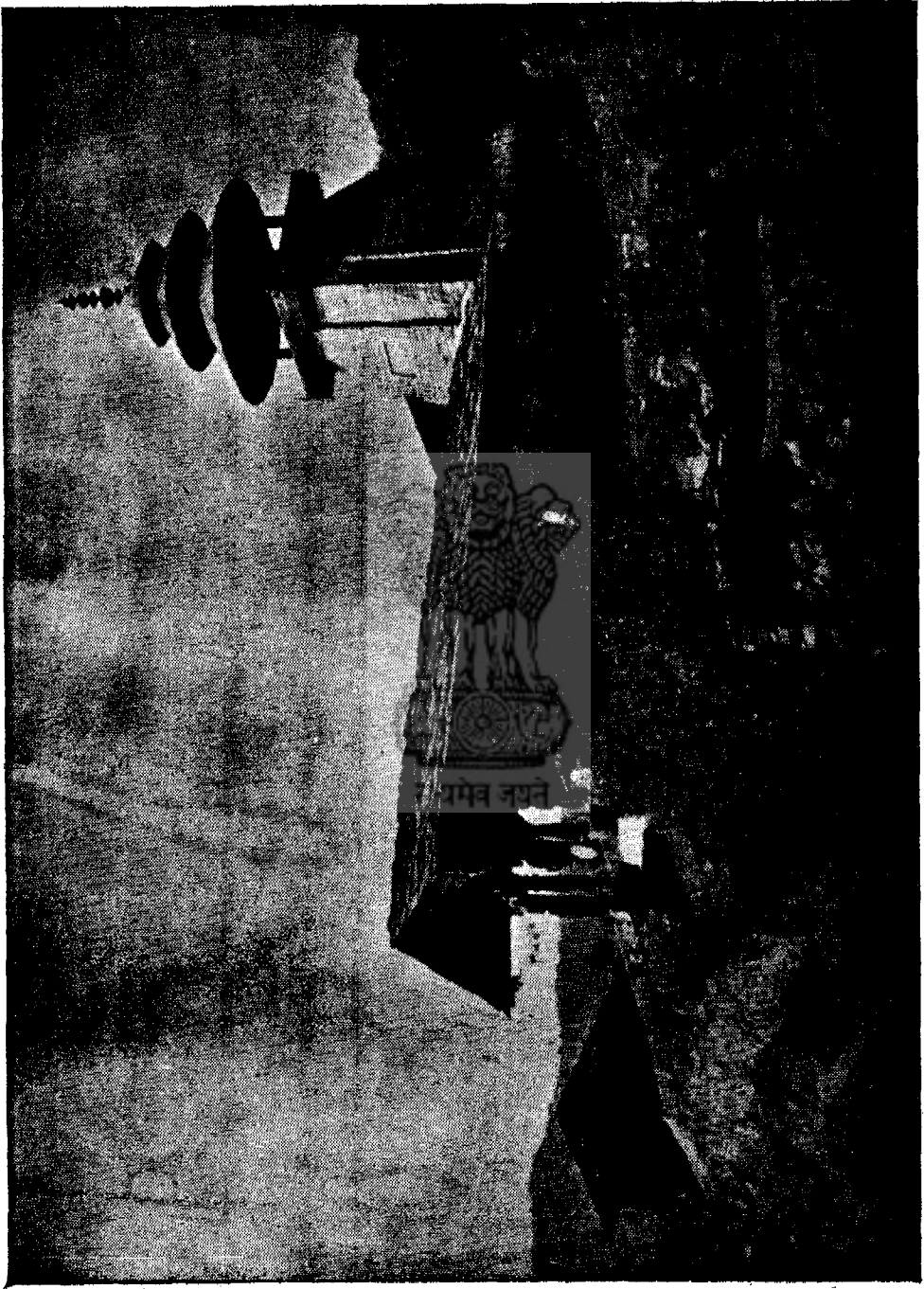
Mussoorie was one of the first hill stations to enjoy the benefits of local self-government. After Mr. Wells' Settlement of 1842 a local committee was constituted under Act X of 1842 and by-laws were



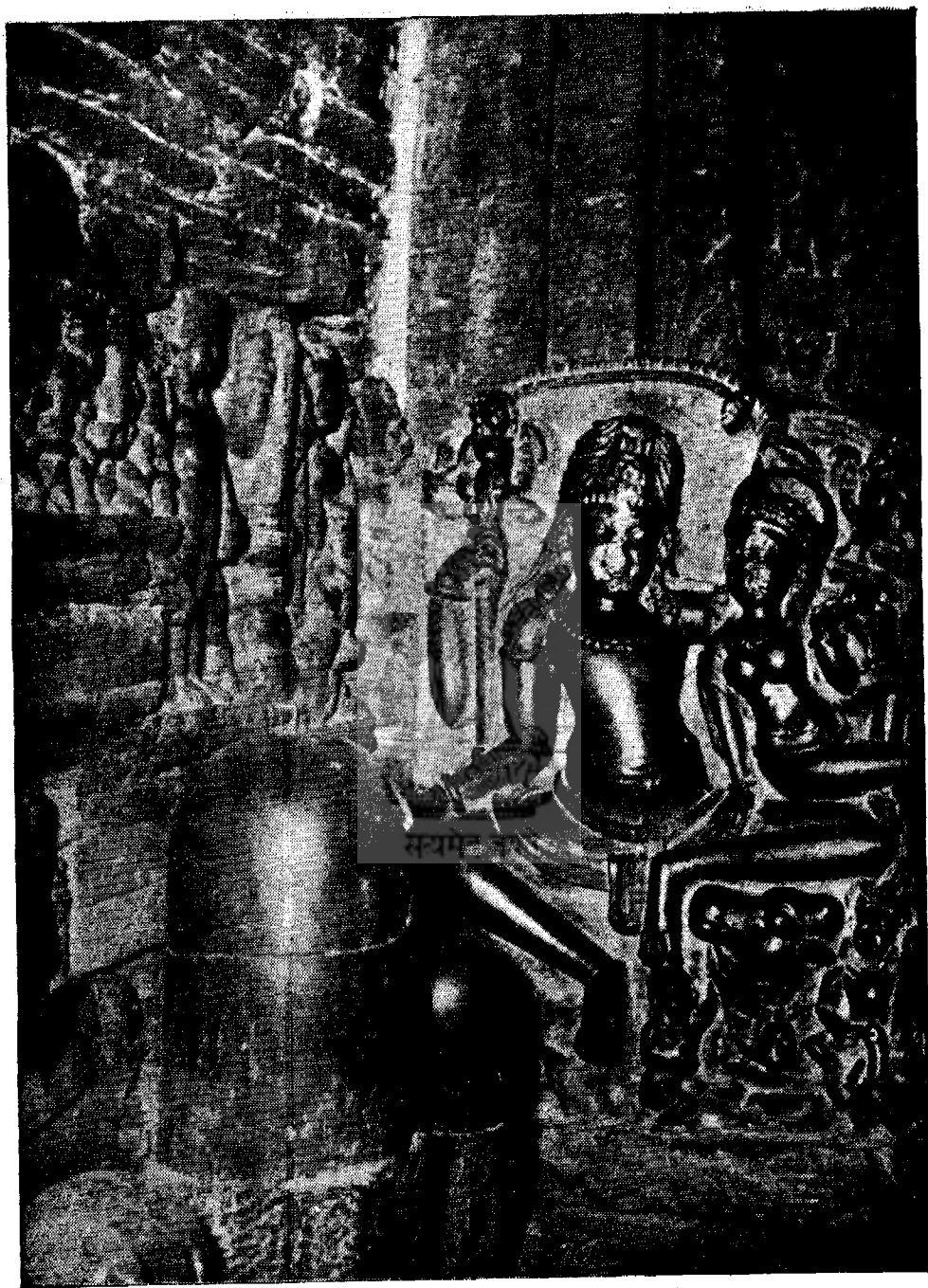
**Another view of sculptures of Siva and Parvati inside the main shrine,
Lakha Mandaj, Dehra Dun**



Sculptures of Siva and Parvati inside the main shrine, Lakha Mandal, Dehra Dun



Kedar Nath Temple at Bhattar Village, Lakhia Mandal, Dehra Dun



Interior view of Kedar Nath Temple, Lakha Mandal, Dehra Dun, showing sculptures of Siva and Parvati

drawn up for the regulation of the station. The committee's main source of income appeared to have been the government share of the ground rent imposed upon bungalow sites. The present population of Mussoorie municipality is 18,038 (11,486 males and 6,552 females) spread over an area of 65.27 sq. km. It has a post-office and a telegraph office, and almost every other modern facility.

Formerly, as the town was mainly dominated by Europeans, it was furnished with hotels, bars, cinemas, ball-rooms and the like. Thereafter princes, talukdars and well-to-do persons patronized it, as a result of which many palatial buildings were constructed. Several good hotels exist even at present. There is an inspection house at Charleville road maintained by the public works department.

For the purposes of recreation there are a number of clubs like the Mussoorie Co-operative club behind Hakman's hotel. There are also a large number of modern restaurants. The main shopping centres of Mussoorie are the Kulri bazar, the Library bazar and the Landour bazar. Among the prominent banks are the State Bank of India, the Allahabad Bank, and the Punjab National Bank. There is a tourist bureau to provide necessary information to the visitors.

In the early days, the people had to trek from Rajpur to Mussoorie for a distance of about 11 km. or use a horse or *dandi* (chair carried by porters). This mode of approach was tiresome and took much time. Need for quicker and more convenient transport was felt and a motor road survey was carried out. Mussoorie was finally connected with Dehra Dun through a motor road which first had its terminus at Bhatta, and the first car arrived at Mussoorie in 1920. The road continued to be extended till the motor terminus came to Sunnyview in 1928. It came up to Kin-Craig in 1934-35. The bifurcation to the library was opened in the middle of the forties, while the branch to the Picture Palace was constructed in 1947. This led to the speedy development of Mussoorie, which has grown into one of the finest hill resorts of northern India. Mussoorie is famous for its scenic beauty, gay social life and entertainment. The excellent climate makes it an attractive holiday resort. Thronged with holiday crowds it vibrates with gaiety and merry-making during the summer season. There are no steep climbs and the more adventurous can undertake enjoyable excursions to various beauty spots in the vicinity. Popularly known as the queen of hills, Mussoorie affords glorious views of the mighty Himalayan peaks. Kempty falls, which are about 11 km. from the town, and are situated on the Mussoorie-Lakhwar-Chakrata road attract hundreds of people every day. The old jeepable road has now been converted into a motorable one and will soon be converted into a national highway. Bus service has been started for the Kempty falls and beyond, and the tourist in a hurry is saved from an irksome journey by rickshaw or *dandi* or a tiring pony ride. There is a forest rest house about a kilometre above the falls.

The Bhatta falls, which are about 6 km. from Mussoorie on foot, are situated on the Mussoorie-Dehra Dun motorable road near the Bhatta village. The torrent is smaller than that of the Kempty, but

as a picnic spot the place is nearer the town. It is enjoyable place for a day's stay, away from the humdrum life of the town. A large pucca shed has also been constructed here to protect tourists from rain and sun.

Another place of interest in Mussoorie is the Depot Hill, popularly known as 'Lal Tibba.' During the British regime a convalescent depot was established here for sick and infirm British soldiers. The height of the hill is about 2,432 metres above sea level, and it is the highest point in Mussoorie. Beautiful Himalayan panorama is visible on all clear days from this spot. The Badrinath, Kedarnath, Bandarpooch, Srikantha and Nanda Devi peaks can be seen from here. An electrically operated binocular has been placed at this top and adds to the tourist attraction.

About one kilometre and a half from the library, in the west of Mussoorie, towards Benog, the Municipal Garden is a good picnic spot. Rickshaws and cars can go up to the garden, which is being developed into a flower nursery by the Mussoorie city board.

There is also a plateau about 8 km. beyond the Municipal Garden, which gives an excellent view of the Dun valley and the Kalsi area. The road to this place is almost level.

As for the climate of Mussoorie, "The rains," writes Dr. McConaghey, "begin almost invariably about the middle of June, preceded by a few showers called the *chota-barsat*, and continue until near the end of September. This is the most unpleasant and least invigorating period of the year. From the end of March until the beginning of the rains, the climate is delightful, though the sun's rays oppressive for a few hours of the middle of the day, the mornings and evenings are always cool. The period of the year from which the greatest benefit to health is derived is unquestionably from the cessation of the rains until the end of December, and this is especially seen in the case of delicate children."

Mussoorie can boast of a number of schools and colleges. In fact it is a city of educational institutions. The Mussoorie city board has started a degree college, affiliated to the Meerut University, and there are three intermediate colleges for boys and two for girls, besides a number of public schools. The library in Gandhi Chowk (founded in 1843) is a large English Library, while the Tilak Memorial Institute and library, near the Picture Palace, founded in the twenties of this century, offer books relating to practically every field. All these institutions have their own managing bodies and are financed by the Mussoorie city board through suitable annual grants-in-aid. Walking sticks, thermometers and microscopic films are manufactured at Mussoorie.

Mussoorie has a Civil Hospital, Infectious Diseases Hospital, St. Mary's Hospital, Oakgrove Hospital, the Nehru Eye Hospital. The City Board, Mussoorie; runs ropeways between Jhulaghar, near Tourist Bureau, and the Gun Hill. Its construction was completed

on December 31, 1966 at a cost of Rs 6,00,000. It covers a distance of about 400 m. and has become an added source of attraction to visitors besides being a rich source of income to the city board. The National Academy of administration is also housed in the former Charville Stapleton House complex.

Nawada (pargana Eastern Dun, Tahsil Dehra Dun)

Nawada village is situated on the northern slope of the Nagsidh hill at a distance of about 13 km. south-east of Dehra Dun with the Suswa river flowing along its southern base. Local tradition assigns to a Rani Karnawati and her consort, Ajbu Kunwar several works in the Dun of ancient date and amongst them is the Rajpur canal. Their palace was at Nawada on the hills close to the village, and had subsequently become the local residence of the Garhwal rajas. The ruins of the building are still in existence. During Lalit Sah's regime (1772-80) the seat of local government of the Dun was transferred from Nawada to the little town around the Gurudwara.

There is a rest-house in the village and a temple of Mahadeo, where the people of Dehra Dun and the neighbouring villages assemble annually to perform puja, on every Monday throughout the month of Sravana (July-August).

Nawada has an area of 144 hectares, of which 64 hectares are cultivated, the land revenue being Rs 706. Its population is 899 (219 males and 180 females). It has 69 residential houses.

Raipur (pargana Eastern Dun, tahsil Dehra Dun)

The town of Raipur is situated at a distance of about 6 km. from Dehra Dun on the right bank of the river Song. During the British period tea plantation was encouraged and the Raipur Tea Company, with 180 acres under tea, was established. Raipur has now a population of 5,209 persons (2,892 males and 2,317 females) spread over an area of 12.95 sq. km. The land revenue is Rs 4,440. Tea growing is still the main occupation of the people of the place. It was a favourite residential area of many district officials and pensioned Gurkhas. A large number of new houses have since been built here. Raipur possesses a school, and an inspection house. The main crops are rice, wheat, sugar-cane and maize. Lime is manufactured here.

Rajpur (pargana Western Dun, tahsil Dehra Dun)

Rajpur, a small town, is situated at the foot of the Himalayan range on the metalled road from Dehra Dun to Mussoorie, at a distance of about 10 km. from the district headquarters and 11 km. from the Landour post-office.

Rajpur has grown out of three small villages, Rajpur, Birgirwali and Dhakpatti. The town consists for the greater part of a double row of houses standing on either side of the road to Mussoorie, which is quite steep. The hillside opens out somewhat at its upper and lower extremities, thus affording sites for a number of dwelling-house and huts.

The town was used as a sanatorium for invalid soldiers, in the early British period, but with the rise of Mussoorie, its reputation for that purpose dwindled. In 1907 it became a notified area with a committee consisting of three members, the assistant superintendent of the Dun being its president. It possesses a police-station, a rescue home, a high school, a school for blind children, a co-operative training school, an Ayurvedic dispensary and a laboratory manufacturing homoeopathic medicines besides four religious institutions.

The main crop sown is rice, the source of irrigation being the Rajpur canal. Many visitors who find Mussoorie too expensive during the summer rush, stay at Rajpur.

The climate of Rajpur is equable being warmer than that of Dehra Dun in the winter and cooler in the summer, and it is said to have a beneficial effect on phthisical patients. There is a wool-weaving mill and carpets are also manufactured here. The fair of Ambika Devi is held during the month of Chaitra in which about 1,00,000 persons assemble.

Rani Pokhari (pargana Eastern Dun, tahsil Dehra Dun)

The village of Rani Pokhari is situated at a distance of about 28 km. from Dehra Dun on the Dehra Dun-Rishikesh road. It has a family planning sub-centre, a senior Basic school, and a police-station. The Jakhan canal traverses the village and excellent wheat is produced here. The population of the village is 262 (149 males and 118 females) and is spread over an area of 180 hectares. The land revenue is Rs 2,172.

Rishikesh (pargana Eastern Dun, tahsil Dehra Dun)

Rishikesh town is beautifully situated on the right bank of the Ganga at a distance of about 42 km. from Dehra Dun. The place has developed rapidly, especially since the realignment of the pilgrim road from Raiwala to Rishikesh.

After the fairs at Hardwar, pilgrims, no longer deterred by the former difficulties of the journey, now visit the place in large numbers. Before continuing their pilgrimage to Badrinath, some use it merely as a resting place, while others make Rishikesh their final goal, and return homewards after having visited the various shrines that dot the road from Rishikesh to Lachmanjhula. It is the trade centre for the districts of Tehri Garhwal and Garhwal and is connected by rail and road with important towns, being only 24 km. distant from

Hardwar by rail and road. There are scores of ancient temples and *ashrams* affording spiritual or physical solace to the pilgrims. The best known temple is that of Bharata, the brother of Lakshmana who did penance here for the killing of Ravana. The Punjab Kshetra is another building worth seeing. This fine edifice, which was erected through subscriptions from the Sikhs of Punjab, is now managed by a well organised institution. The Geeta Bhawan is another well-known religious institution. There are also other important temples in Rishikesh such as the Puskar temple, Shatrughan temple and Lakshmana temple.

The place has a number of dharmshlas which provide all requisite facilities, including utensils and food, to the pilgrims. Rishikesh has an antibiotic medicines factory and a calcium manufacturing centre. Rice milling, tyre retreading and printing work is also done.

Important fairs are held on the occasion of Basant Panchmi, Makar Sankranti and Ganga Dasahra.

The town of Rishikesh is electrified and it has a population of 17,646 persons of whom 10,419 are males and 7,227 females. It is spread over an area of 2.59 sq. km.

Sahaspur (pargana Western Dun, tahsil Dehra Dun)

Sahaspur, one of the oldest villages of the district, is situated at a distance of about 26 km. from Dehra Dun on a metalled road. The population of the village is 3,113 persons (1,741 males and 1,372 females) and it is spread over an area of 425 hectares. The village possesses an inspection bungalow belonging to the public works department, a police-station, a post-office, an intermediate college, a family planning centre and a maternity and child welfare centre. Many years ago the famous old Sahaspur swamp was drained by the zamindars of the place. It is the headquarters of a development block which has 10 *nyaya* panchayate within its limits. *Khandsari*, furniture and agricultural implements are manufactured here. The land revenue is Rs 3,826.

Sahasra Dhara (pargana Eastern Dun, tahsil Dehra Dun)

Sahasra Dhara, literally meaning the "thousand-fold spring," is situated at a distance of 11 km. from Dehra Dun about half way up the somewhat precipitous right bank of the Baldi river in a village called Bagda Dhoran. The place makes an ideal picnic spot and is of immense attraction for visitors. It lies in a glen to the south of the Dun water-parting ridge, a little east of Rajpur, en route to Mussoorie. The water here has a fall of about 9 metres and leaves an incrustation of lime on all it touches. Particles thus accumulating over the centuries have formed a projecting ledge, and a sort of cave, from the roof of which falls a perpetual shower. One of the lumps formed in the process in a smaller adjoining cave, resembles the lingam and is tended as such by Brahmanas from Nagal. There is also a sulphur spring in which visitors often take bath. As its water is said to cure skin infections, and to possess other medi-

cial properties visitors also take it away in bottles. According to S.R. Narayan Rao, honorary director, directorate of geology, U.P. "the spring is perenial and according to an estimate the flow is about 2,500 gallons an hour. The flow varies in different seasons. The water can be classified as medicinal sulphur water, being very close to the waters of German Sulphur Springs. It is used for skin diseases and as an appetiser. The German waters of nearly the same composition are used for curing gout, rheumatism, chronic catarrh and haemorrhoids etc." On the right bank of Sahasra Dhara are stalactitic caves, which affords a pleasant walk as water continues to trickle down their roofs.

A rest house has been constructed by the tourist department of the State Government. Government roadways buses and taxis reach the place plying on a metalled road from Dehra Dun. As the sulphur springs at Sahasra Dhara have got high medical properties and the valley itself has a fine climate the place can very well be developed as an ideal health resort on the pattern of similar health resorts in foreign countries.

The place has a primary school.

Vikasnagar (pargana Western Dun, tahsil Dehra Dun)

Vikasnagar, a small town, lies on the Saharanpur-Chakrata road about 37 km. north-west of Dehra Dun. The town formerly known as Choharpur was being administered as a town area till 1965 when it was raised to the status of a municipality and came to be known as Vikasnagar.

The town, which is electrified, has an area of 1.40 sq. km. and a population of 7,066 (female 3,199). It possesses two intermediate colleges, two senior Basic and two junior Basic schools, an inspection house of irrigation department, two dharmshalas, an Ayurvedic and an allopathic dispensaries. There is a small local market.

CONVERSION FACTORS

Money

1 pie=0.52 paise

1 pice=1.56 paise

Linear Measure

1 inch=2.54 centimetres

1 foot=30.48 centimetres

1 yard=91.44 centimetres

1 mile=1.61 kilometres

Square Measure

1 square foot=0.093 square metre

1 square yard=0.836 square metre

1 square mile=2.59 square kilometres=259 hectares

1 acre=0.405 hectare

Cubic Measure

1 cubic foot=0.028 cubic metre

Measure of Capacity

1 gallon (Imperial)=4.55 litres

1 seer* (80 tolas)=0.937 litre

Measure of Weight

1 tola=11.66 grams

1 chhatak=58.32 grams

1 seer*=938.10 grams

1 maund*=37.32 kilograms

1 ounce (Avoirdupois)=28.35 grams

1 pound (Avoirdupois)=453.59 grams

1 hundred weight=50.80 kilograms

1 ton=1,016.05 kilograms=1.016 metric tonnes

Thermometer Scales

1° Fahrenheit=9/5° Centigrade+32

*As defined in Indian Standards of Weight Act, 1989

GLOSSARY

<i>Adalat</i> ...	... Court of justice
<i>Adhyaksh</i> ...	... Chairman
<i>Ahalmad</i> ...	... Court clerk
<i>Amil</i> ...	... Official who collected revenue under the Nawabs of Avadh
<i>Amin</i> ...	... Petty revenue official
<i>Angarkha</i> ...	... A kind of shirt
<i>Arati</i> ...	... The ceremony performed in the worship of Gods by moving a lighted lamp or camphor circularly round the idol
<i>Arhar</i> ...	... Pigeon pea
<i>Artipatra</i> ...	... A flat vessel in which lighted lamp is put in for performing <i>Arati</i>
<i>Arvi</i> ...	... <i>Arum calocasia</i> , A species of Arum
<i>Asami</i> ...	... A lessee of a disabled <i>bhumidhar</i> or of a <i>sirdar</i> or a tenant of the <i>gaon sabha</i> , having no transferable rights
<i>Ashrama</i> ...	... Hermitage
<i>Baingan</i> ...	... Brinjal
<i>Bajra</i> ...	... Pearl millet
<i>Ballies</i> ...	... Wooden poles
<i>Bazar</i> ...	... Market
<i>Berseem</i> ...	... Clover
<i>Beshi</i> ...	... Additional
<i>Bhang</i> ...	... A intoxicating hemp (<i>Cannabis sativa</i>)
<i>Bhayachara</i> ...	... A village held by a body of co-sharers
<i>Bhindi</i> ...	... Lady's-finger
<i>Bhumidhar</i> ...	... Peasant-proprietor having permanent, heritable and transferable rights in his holdings
<i>Bhut</i> ...	... Ghost
<i>Biri</i> ...	... Indigenous cigarette made of <i>tendu</i> leaves and tobacco
<i>Bund</i> ...	... Dam
<i>Bundhi</i> ...	... Small dam
<i>Chandu</i> ...	... Preparation of opium smoked as an intoxicant

<i>Chari</i>	...	...	A fodder crop
<i>Dai</i>	...	...	Midwife other than those who hold diplomas
<i>Dandi</i>	...	...	Stick
<i>Dankani</i>	...	...	She ghost
<i>Deshi</i>	...	...	Indigenous
<i>Devata</i>	...	...	God
<i>Dhammas</i>	...	...	Principles of Buddhism
<i>Dharmada</i>	...	...	Charges for religious or charitable purposes
<i>Dharmshala</i>	...	...	Free rest house for pilgrims and travellers
<i>Gair maurusi</i>	...	...	Non occupancy
<i>Gaon</i>	...	...	Village
<i>Gehat</i>	...	...	A kind of pea produced in hills
<i>Ghar</i>	...	...	House
<i>Ghuinya</i>	...	...	<i>Arum calocasia</i>
<i>Gosadan</i>	...	...	Byre or cowhouse for keeping unproductive cattle
<i>Guchchi</i>	...	...	Mushroom
<i>Gul</i>	...	...	Drain
<i>Gur</i>	...	...	Jaggery
<i>Gurukula(s)</i>	...	...	Residential educational institution at <i>guru's</i> own place
<i>Halwa</i>	...	...	A sweet dish prepared from <i>sooji</i> , sugar and clarified butter
<i>Hissadari</i>	...	...	A system of tenure
<i>Jamma</i>	...	...	The assessed land revenue
<i>Kabaddi</i>	...	...	Indian game
<i>Kamdar</i>	...	...	Labourer
<i>Kanungo</i>	...	...	Petty revenue official
<i>Katora</i>	...	...	Bowel of metal
<i>Khadar</i>	...	...	Low land near the river
<i>Khaddar</i>	...	...	Hand spun and hand woven cloth
<i>Khandsari</i>	...	...	Indigenous white sugar
<i>Kharanja</i>	...	...	Pavement of bricks
<i>Khasra</i>	...	...	Field book
<i>Khat</i>	...	...	Hill sector
<i>Khatauni</i>	...	...	Register containing records of rights
<i>Kheer</i>	...	...	A sweet dish prepared from milk, dry fruits, rice and sugar
<i>Khewat</i>	...	...	Annual register
<i>Khil</i>	...	...	Puffed rice

<i>Khudkasht</i>	...	Land other than Sir, cultivated by landlord, under proprietor or permanent tenure holder or by hired labour
<i>Khutbah</i> ...	...	A sermon, specially that is preached in mosque on Friday and on two Ids
<i>Koni</i> ...	...	A kind of cercal found in hills
<i>Lambardar</i>	...	Person appointed to represent co-sharers in their dealings with government and tenants in respect of collection of revenue
<i>Lekhpal</i> ...	...	<i>Patwari</i> ; village accountant
<i>Lichis</i> ...	...	A kind of fruit
<i>Linga</i> ...	...	An emblem
<i>Lobia</i> ...	...	A kind of bean
<i>Lota</i> ...	...	A small pot of metal for keeping water
<i>Madak</i> ...	...	Preparation of opium, smoked as an intoxicant
<i>Mahal</i> ...	...	Unit of land (comprising several villages) under separate engagement for payment of revenue
<i>Maida</i> ...	...	Fine wheat flour
<i>Mali(s)</i> ...	...	Gardener
<i>Mandua</i> ...	...	Kind of small millet
<i>Masoor</i> ...	...	A kind of pulse
<i>Maurusi</i> ...	...	Hereditary
<i>Mauza</i> ...	...	Revenue village
<i>Mela</i> ...	...	Fair
<i>Misl</i> ...	...	Official file
<i>Mistri</i> ...	...	Skilled labourer
<i>Moharir</i> ...	...	Clerk of a pleader
<i>Moong</i> ...	...	Green gram
<i>Muafi(s)</i>	...	Rent free land
<i>Mukaddam</i>	...	Village headman
<i>Mukhiya</i>	...	Village headman
<i>Mulzamin</i>	...	Surety
<i>Munj</i> ...	...	Kind of long reed of which ropes etc. are made
<i>Munsif</i> ...	...	A subordinate judge
<i>Muqaddam</i>	...	Village headman
<i>Naib</i> ...	...	Deputy; assistant
<i>Nautor</i> ...	...	Reclamation of land from waste
<i>Naxul</i> ...	...	The land belonging to government situated within municipal area but not belonging to any particular department

<i>Nyaya</i> ...	... Justice
<i>Palki</i> ...	... Palanquin
<i>Palledari</i> ...	... A wholesale market charge
<i>Panchs</i> ...	... Members of <i>gaon</i> panchayat
<i>Pandal</i> ...	... A large tent
<i>Patti(s)</i> ...	... A strip of land
<i>Pattidari</i> ...	... A system of tenure
<i>Patwari</i> ...	... Petty revenue accountant
<i>Peskar</i> ...	... Court clerk
<i>Phant bandis</i> ...	... A revenue distribution roll
<i>Poori</i> ...	... Deep fried bread
<i>Pramukh</i> ...	... Chairman
<i>Qazi</i> ...	... Functionary who solemnises Muslim marriages; a judge under Muslim rulers
<i>Ragi</i> ...	... A kind of cereal found in hills
<i>Rashi</i> ...	... A name of Zodiac science
<i>Robkar</i> ...	... Official record
<i>Sadar</i> ...	... Chief
<i>Safai havaladar(s)</i> ...	... Sanitary supervisor
<i>Samadhi</i> ..	... Shrine built on place where person is cremated or where ashes of person are buried
<i>Sankar</i> ...	... A kind of maize
<i>Sattu</i> ...	... Flour of parched gram and barley
<i>Sawai</i> ...	... Twenty-five percent is added to the original figure
<i>Sir</i> ...	... Land cultivated by the owner
<i>Sirdar</i> ...	... A land holder having heritable but not transferable rights in the land holdings
<i>Sooji</i> ...	... Granular wheat product
<i>Taluka</i> ...	... Administrative unit
<i>Tagavi</i> ...	... Loans given by government to cultivators for agricultural purposes with or without interests
<i>Thali</i> ...	... A plate of metal
<i>Tora</i> ...	... A kind of millet
<i>Toria</i> ...	... A kind of crop
<i>Uggul</i> ...	... A kind of vegetable found in hills
<i>Urd</i> ...	... Black gram
<i>Vaid(s)</i> ...	... Practitioner of Ayurvedic system of medicine
<i>Varg</i> A category of Zodiac
<i>Waqf</i> Muslim religious or charitable endowment

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